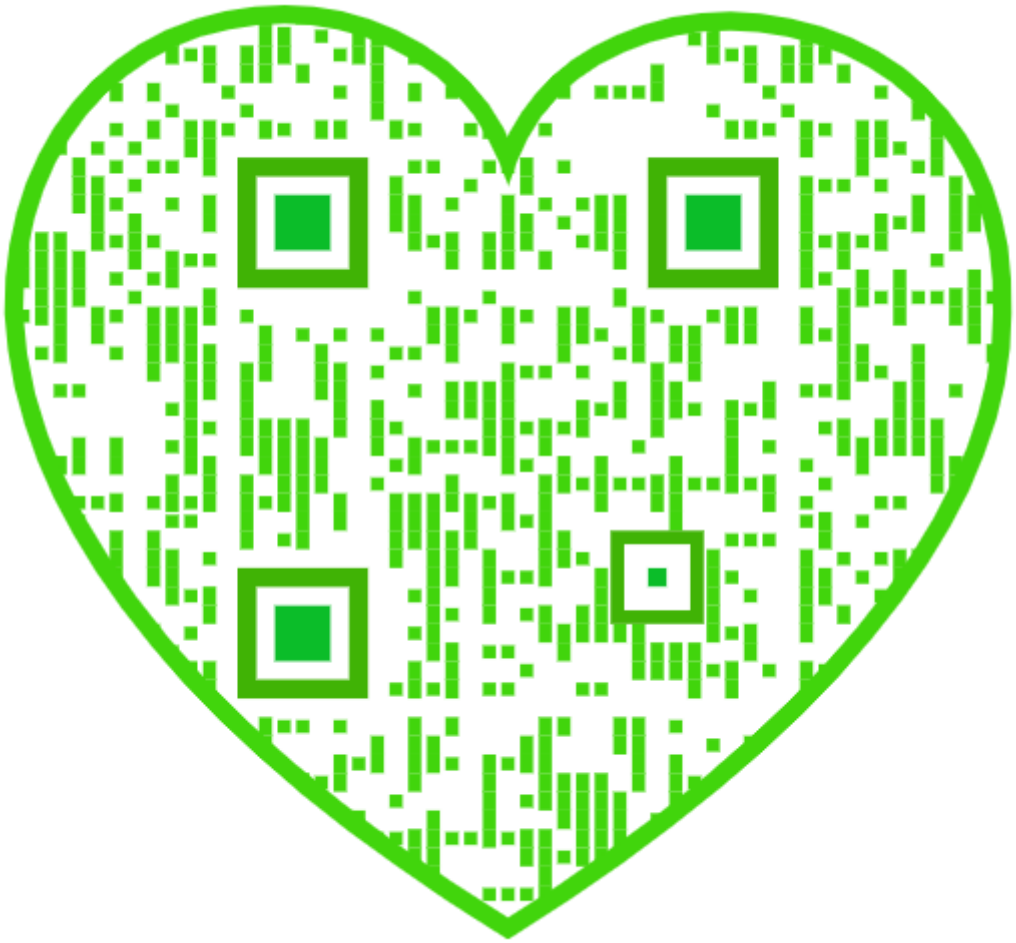

THE

NEW YORK

COACH-MAKER'S MAGAZINE,

DEVOTED TO THE

LITERARY, SOCIAL & MECHANICAL INTERESTS OF THE CRAFT.

EDITED BY E. M. STRATTON.

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VOLUME ONE,

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PREFACE.

It is with profound satisfaction that we are now enabled to present the Coach-making fraternity with the first volume of The New York Coach-maker's Magazine, completed. Undertaken, as it was, under discouraging circumstances, maliciously assailed by one who owed us a debt of gratitude for services rendered, instead of the storm of abuse with which he repaid us, and with the "hard times" bearing against our new enterprise, yet we have gone steadily on, encouraged by the commendations of a generous Craft, and assisted by a galaxy of contributors, whose varied talent has given that variety and interest to our columns, which, we trust, has not only been creditable to the profession, but to the writers individually. The high encomiums this work has received from the Press, here and in Europe (this is not empty boast), and from our fellow-mechanics in the Craft, we are proud to confess, have cheered us on, and enabled us to triumph over difficulties, where a simple frown might have sunk us in despair.

Probably, there cannot be found a more difficult labor to perform, than that required from one engaged in conducting a journal, in which mechanics and literature are combined. Without going into details, we may state that, in arranging the different forms as they have monthly passed through the press, our constant oversight has been invoked to guard against inaccuracies, and although we would not presume to claim perfection in the typography, yet we will say that we believe there are not many works to be found, of the same number of pages, in which so few occur. In this we feel to exult.

There has been one guiding principle that we have striven to keep in view, from the commencement of this volume: that, though dependent, in a great measure, for success on rendering our Magazine useful, still we had to make it attractive, and give only such matter as would be worthy of the refined and enlightened Craft for whom we had undertaken to cater. How far we have been successful, let our subscription book witness. At the close of its first year, with a patronage equal to that of any similar publication in its palmiest days, we have reached a stand-point, from which we may entertain hopes full of promise, and expect to reap a future harvest of reward for our labor. If, up to this point, our friends are satisfied that we have done well, would it be asking too much when we invite them to try us another year, and give us a fair chance to do better? The experience we have gained in the first volume warrants the inference, at least, that we shall be able to satisfy the reasonable expectations of the Craft in the second. Asking the hearty co-operation of the numerous friends of this Magazine, to assist us in its circulation, we are

Yours truly,

Ezra M. Stratton

New York, *April* 15*th*, 1859.

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4. Caleche-Coach.
5. Jagger-Wagon and Dog-Cart.
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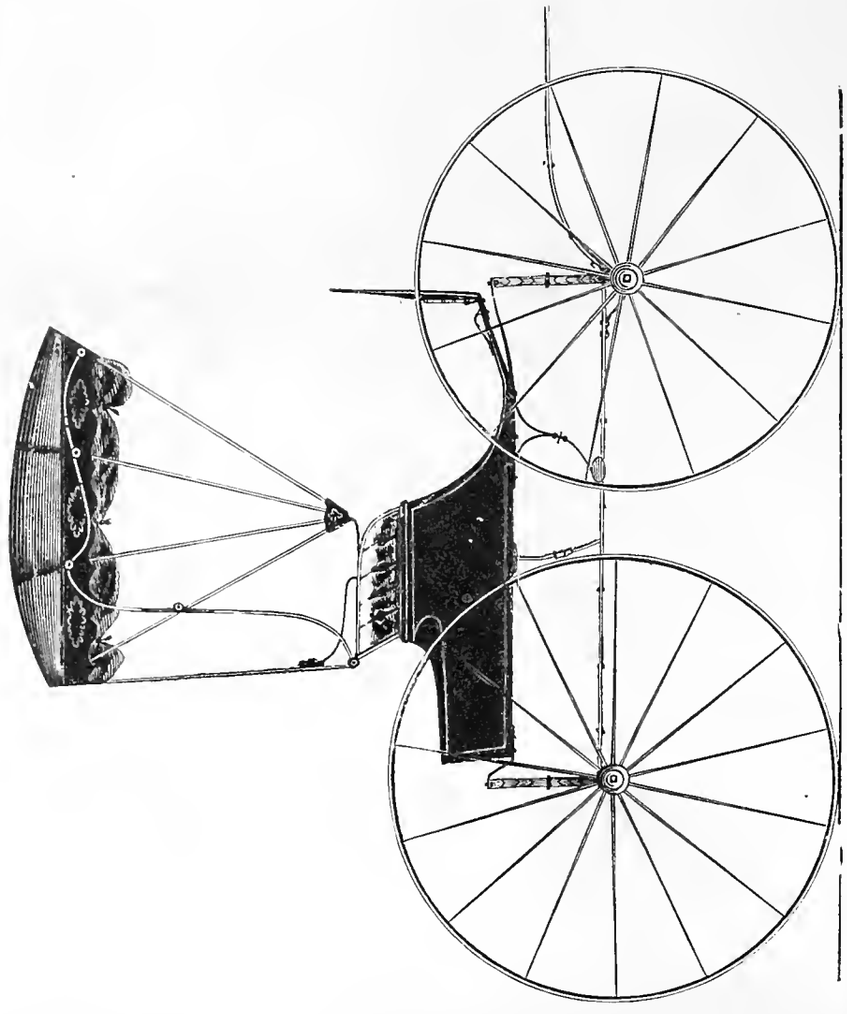
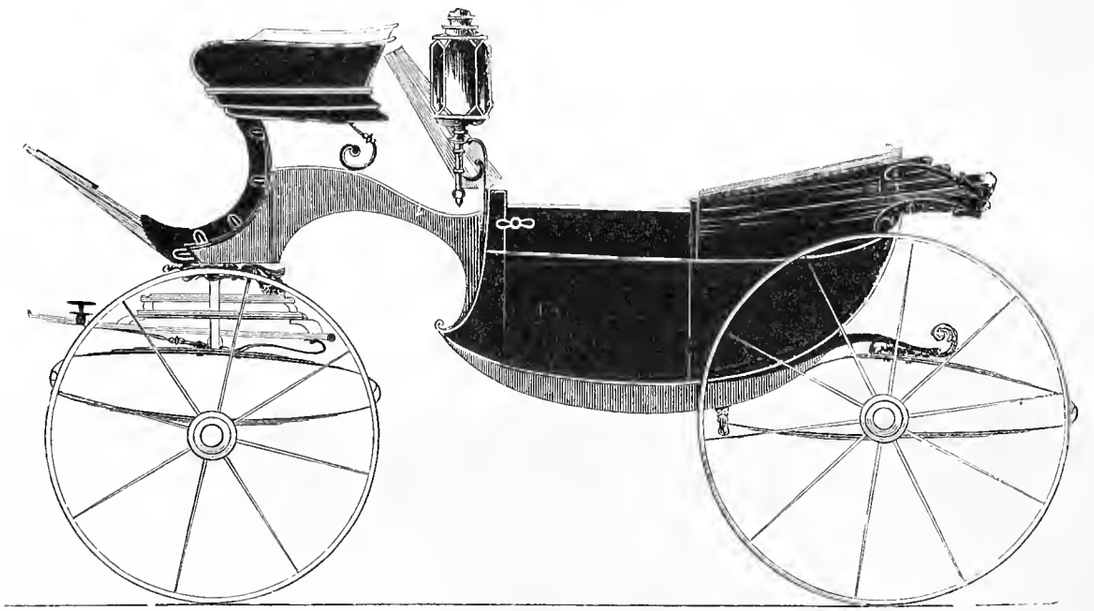


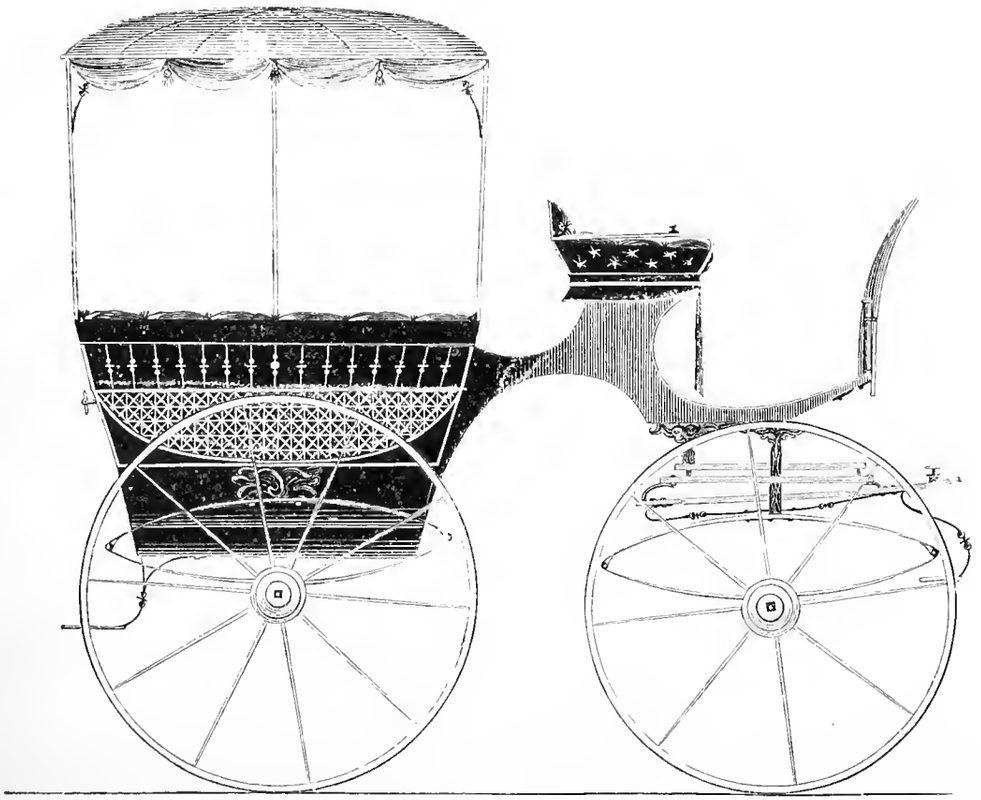
OPEN FRONT BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 9.



LANDAULET.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 9.



CHAR-A-BANC.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 10.

Yours Truly
James Beaster

Engraved expressly for the New York Coach-Maker's Magazine.

June, 1858.

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, JUNE, 1858. No. 1.

The Coach-Maker's Portrait Gallery.

BIOGRAPHY OF JAMES BREWSTER, ESQ.,

(WITH PORTRAIT.)

No species of writing is more deeply interesting than that of history, and no composition is of greater interest than that which records the history of a fellow-man. Should the subject of that history be a member of our own craft, that circumstance adds additional interest, and we are led instinctively to inquire: When and where was he born? What were his earlier tastes and predilections? What were his earlier advantages of education? What his peculiar trait of character as manhood developed itself? etc., etc. All these questions, we affirm, are perfectly natural, and often, when they are satisfactorily answered, we discover that, in this country, at least, our most distinguished men are those who, by untiring industry and an honorable course of life, have been the makers of their own fortunes. It is very true there may be exceptions to this rule—some "may have had fortunes thrust upon them"—but then they belong rather to the exception than the rule. It has come to be the boasted peculiarity of our free institutions, that all alike—the rich and the poor—may find an open door to the Temple of Fame and the magazines of wealth. This *is* unquestionably so in a qualified sense.

Among the members of our own profession we know of none more deserving of a niche in our Portrait Gallery than Mr. James Brewster, of New Haven, Conn., not merely because he is one of the oldest living members of our fraternity, and has been one of its most successful business men, but because he has always shown a peculiar interest for the welfare of all with whom business has brought him in connection; but more of this hereafter.

JAMES BREWSTER, whose portrait we present to our readers in the present number, is the second of eight children, five of whom are still living, and is a lineal descendant from Elder William Brewster, a portion of whose family, history informs us, came over from Europe in the Mayflower, with the first installment of the Pilgrims, and who landed in Plymouth Harbor on that cold and eventful morning of November 22nd, 1620. In reference to these Pilgrims and their immediate ancestors, it has been quaintly said by one of their distinguished descendants—the Rev. Henry Ward Beecher—that "under Divine Providence, there had been (in England and Holland) a trunk growing, a leaf growing, a bud growing, and, by-and-by, when God said, 'Blossom!' the Puritans came (to our shores), and they were the blossom of ages!" Of their distinguished Chief, Elder Brewster, it is said, that once, when on a mission as secretary to Davidson, an English ambassador to Holland from Queen Elizabeth, "he slept one night with the keys of Flushing under his pillow." Among the descendants of this old Puritanic stock, then, is included our venerable and worthy fellow-craftsman.

The subject of this sketch was born at Preston, Connecticut, Aug. 6th, 1788, and is consequently now nearly seventy years of age, and some years retired from the more active pursuits of his former business—although as a silent partner, we understand, he is still connected with a large coach-making establishment in New Haven; and, amid the abundant fruits of a life of honorable enterprise, and in the enjoyment of all his faculties unimpaired by age, he spends his time in devising modes of usefulness to his fellow-men, especially young men. Educated at the common school of his native place, and early taught the rigid principles of morality characteristic of the earlier settlers of New England, and, although, to use his own language, "feeble in early life, encountering in his minority as many trials as any who heard him—fatherless and with but little outward assistance—and laboring constantly for half a century, yet his natural force is not materially lessened," and he attributes it as "all owing to temperance, and practicing upon that trite saying: '*Habits, good or bad, are powerful things.*'" *

In the year 1804, being then in the sixteenth year of his age, Mr. Brewster was apprenticed to Col. Charles Chapman, of Northampton, Mass., to learn the "art, mystery, and trade" of carriage-making. In this same shop, we believe, Messrs. James Goold, now of Albany, and Jason Clapp, of Pittsfield, Mass., both served their apprenticeships, whose portraits we hope to be able to present in our Gallery at a future day. At the expiration of Mr. Brewster's apprenticeship—to his honor be it said—he received a diploma from

* Address to the Young Men of New Haven, delivered in Brewster's Hall, Jan. 28, 1857, p. 14.

the Hampshire Mechanics' Association, of which Hon. Josiah Dickinson was then the president.

To decision of character, in the first few days of his apprenticeship, Mr. B. attributes his success in after-life. He says, "When I saw the effects of intemperance in the shop, I was deeply affected, and, but for fear of being laughed at, I would have returned home. As the youngest apprentice, it was my lot to bring the liquor from the dram-shop, and I was entitled to a share gratis; but I resolved that I would not use it. On one occasion, refusing to drink, the oldest apprentice ordered me to stand upon a bench—tantalizingly called upon his shop-mates to look at me—and termed me a 'no-souled fellow.' As quick as thought an expedient occurred to me. I had witnessed indications of kindness in the oldest apprentice, and I resolved to appeal to his feelings. I told him I thought it was hard to be forced to act contrary to my inclinations; but, to show that it was not selfishness that actuated me, I was willing to give up all the money I possessed; and I thereupon did so. I was not mistaken in my appeal. It touched the sensibility of the oldest apprentice—I was permitted to get down from the bench—the victory was gained—and I was never afterwards importuned to drink. I gained the respect not only of my fellow-apprentices, but of my master also, and his kind-hearted lady; yet, sad to relate, most of my associates, as well as my master, became the victims of intemperance."* We hope that the example of our sage brother will not be lost on us, his successors.

Having *honestly* served out his apprenticeship at Northampton, and become a journeyman, he found circumstances rendered it necessary for him to limit his whole personal expenses to forty dollars per year, so as to be able to save something to set up in business with for himself. The economy and liberality of the man are illustrated in the fact that once, when an apprentice, having put up at a public-house, while on a journey to the home of his childhood, his limited means subjected him to the choice of paying the hostler for the care of his horse, or to use the money for the purchase of a meal. A sense of justice to the poor hostler predominated. He paid him, but went without his breakfast, feeling more happy, under the deprivation, than he would have done with the idea of not discharging a just obligation.

Mr. Brewster is an example of what economy of time will do when applied to study. He tells us he made it a rule to read one hour each day, after working his twelve hours; for, during his apprenticeship and while conducting business for himself, it was his custom, from the 20th of September to the 20th of March, to work four evenings every week, and always to average seventy-two hours in the week. In Mr. B.'s case we have another proof that often a very trifling circumstance in a man's history may change the programme he has marked out for himself, and prove to him the flowing of a tide in his affairs, which, if followed, will lead him on to a fortune. In September, 1809, while on his way to New York, the detention of a stage caused Mr. Brewster to stop a short time in New Haven; and, while walking around the city, he accidentally passed a carriage shop in Orange street. Learning that the proprietor was in want of a journeyman, he changed his proposed journey to New York, and commenced work in New Haven, where he has continued to reside for more than forty-six years. He commenced with a debt against him of thirty dollars. In 1810, the second year after his location there, he "started" business for himself, in a little shop on the corner of Elm and High streets. Subsequently, his business increasing, he moved into Orange street, where he conducted business for many years. In connection with this New Haven establishment, he had branches of it in other cities of this Union. One was in the city of New York, where he bought out the repository of an old carriage-manufacturer, Mr. Abram Quick, in Broad street, and shortly afterwards united with him in partnership Mr. John R. Lawrence, now the old-established and extensive carriage-manufacturer in Broadway, the friendship and personal acquaintance of whom the writer is proud to acknowledge.

At one period Mr. B. had considerable trade with the island of Cuba, where he is reported to have furnished a number of that popular vehicle, the Volante, the especial favorite of the fair señoritas of that dependency of Spain. In connection with this period of his life, Mr. B. very frequently discourses of the trials he encountered and the difficulties he overcame, and the economical practices he used in manufacturing and transporting his work to a distant market, which we, from motives of delicacy, knowing his modesty of feeling, omit here, although it gives us great pleasure to say, that, unlike many others, he has never felt himself above his business.

Finally Mr. B. removed from Orange street into what was then called "The New Township," then a suburb of the city, and which he mainly has been instrumental in building up, thereby making a large addition to the city of his successes. In 1855 he erected an Orphan Asylum, which, with his characteristic benevolence, he afterwards presented to the city of New Haven. He has very recently erected a very fine edifice, which is known as BREWSTER HALL, in which place he recently delivered an address to the apprentices and employés of his, in his former business. This address has been given to the public in pamphlet form, from which we intend hereafter to give our patrons some extracts, the advice of which, if followed, must conduce to produce a higher aim of life. On the occasion of this reunion, a number of gentlemen from different States, and now of different professions, assembled and enjoyed—they say—one of the pleasantest times of their lives. The ties of attachment manifested in the address of Mr. Andrews, and exhibited in the countenances of those there assembled, are evidence that Mr. B. has been singularly fortunate in advancing the best interests of his former employés, and in securing that degree of good feeling desirable between the employer and the employed.

Such has been the *luck* of Mr. B. (we would call it industry, prudence and economy), that now in his advanced years his personal happiness is promoted in having it in his power to assist others. We may sum up all in the words of a letter to us, from one intimately acquainted with him for more than forty years: "In my judgment, Mr. Brewster stands unrivaled by any man living, or that has *ever* lived in this city (New Haven), for public enterprise and philanthropy—he is a practical Christian of a noble stamp." May he long live to enjoy the fruits of his labor and the esteem of his fellow-citizens.

S.

* Address, p. 15.

A CHANCE FOR A CARRIAGE MAKER.—A recent traveler in ———— says that at Islamabad, in Cashmere, there is not a single wheeled carriage to be found.

Miscellaneous Literature.

THE STATE CARRIAGE OF MAB, QUEEN OF THE FAIRIES.

COACH-MAKING WITH THE POETS.

"That power allied to poets' fame,
Which language ne'er has dared to name—
The soul's creative might."

WASHINGTON ALLSTON.

SINCE the advent of the Messiah, whose mission—as sung by the angels to the watchful shepherds on the plains of Judea—was announced as being one of peace and good-will to man, the chariot, as an instrument of warfare, seems to have gradually gone out of use. As a vehicle of pleasure, it has been succeeded by other formations, and, as the Bible emphatically declares, "old things are done away, and all things have become new," and brought about, with these changes, new carriages as well.

Yet, notwithstanding this general disuse of the chariot, &c., as above stated, still the mind of man had, at the period of which we write, become so *chariotically* imbued with the glowing descriptions of such old poets as Hesiod, and Homer, and Virgil, *et id omne genus*, who had sung of phætons, and chariots, and other fanciful creations in former days, that, judging from the productions of Chaucer and his successors, they were very unwilling to relinquish so trite a theme for the exercise of their ingenuity; and, since the thing no longer existed, their inventive minds, with more poetry than truth, have discovered that they were still in use in the fairy-land. This discovery was made about 400 years ago, at a time when carriages were about as scarce as white blackbirds.

From the days of old Chaucer unto the present time, we find that, occasionally, some Muses, favored with visionary visits from the fairy climes, where more sober prose writers are never suffered to intrude, have been initiated into the "charmed circles," and, regardless of every injunction to the contrary, have amused an unbelieving world with their "thrice-told tales." Being but of a prosaic turn of mind—a matter-of-fact man ourself—and, consequently, somewhat slighted by those in the "undiscovered land," we have taken this subject in hand with some reluctance, but with a firm determination to do justice to the veracity of our informants, the Poets, in their revelations.

Chaucer, in a dark age of the world, has told us, in his story of *The Flower and Leaf*, that

"Whan that Phœbus his chaire of gold so hie
Had whirled up the sterry sky aloft,
And in the Boole was entred certainely,"

and thus given us reason *to think* that his optics were unusually penetrating, or else he was especially invited to be "one of the party" where mortals are seldom seen. We would not judge incredulously, but yet we are forcibly impressed with the idea, that the old Monk has plagiarized his story from Ovid, without, in this case, proving that "*ars inveniendi adolescit cum inventis*"—that the art of invention increases with the exercise of the process. The Latin Poet has seated a fast youth—with a god for a parent—in his golden chariot; Chaucer, "a world of ladies" in his chaire, too numerous to mention, and, though he is non-committal as regards the horses, tells us that their "harness was all white,"

"And every bosse of bridle and partelle
That they had, was worth, as I would wene,
A thousand pounds."

Chaucer flourished in an age which, perhaps, may not be inappropriately denominated a transition era, when the chariot of his predecessor brother Poets, who had sung of celestial antagonisms, were about to sing of milder themes, and so he has consistently introduced the "chaire," the coach, &c. Chaucer, inspired, or rather influenced by the spirit of his times, was afterwards improved upon, and imitated by Shakspeare and Drayton, both contemporaries of Spenser, and other less ingenious poets, to our day. Thus a train of poets have manufactured for the literary feast the fairy coach, with spokes of spider legs, and "wheels composed of crickets' bones," and other *light* materials, thereby showing that *our* light carriages—those we call such—are far behind those *manufactured* four centuries ago.

After Chaucer, the next successful poetical coach-maker is Shakspeare, who has painted the fairy—the mild benignant being,

"Who i' the colours of the rainbow
And plays i' th' plighted clouds,"

and who lunched on "the brains of nightingales," the unctuous dew of snails, stewed between two nut-shells, a gnat's thigh or a pickled maggot, and other easily digested dainties of the same nature—as riding in a coach, the body of which was made from the shell "of an empty hazel-nut," for everyday use; but, on state occasions, when Queen Mab wished to show out, the body of her coach was a snail-shell, whose former tenant had been unceremoniously ousted—the hammer-cloth being composed of the wing of a pied butterfly, and the wheels covered (tired?) with thistle-down to prevent their rattling over the pavement. An English writer, who assumes to be posted, says, this "snail-shell carriage of Queen Mab bore the same comparative appearance to her everyday one which the London Lord Mayor's state coach does to his private one."

Michael Drayton, who wrote some twenty five years after Shakspeare, says, Nymphidia, the gentle fay, who met him one night, told him what he has told us—that the chariot of King Oberon, which his unfaithful queen, with her maids of honor, rode away in one evening on a stolen visit to that *fast* chap, Pigwiggen—the king, by-the-by, seems to have been of a weak mind, in other words, jealous of Queen Mab's conduct, and, pursuing, found himself in a misunderstanding with "Pig," the end of which found him "second best," and nearly "kilt," as Paddy would say—was drawn by four nimble gnats with "harness of gossamer," and driven by fly Cranion, as charioteer, "upon the coach-box getting." But we must let the poet speak for himself. He says:

"Her chariot of a snail's fine shell,
Which for the colors did excell,
The fair Queen Mab becoming well,
So lively was the limning:
The seat the soft wool of the bee,
The cover (gallantly to see)
The wing of a py'd butterflee,
I trow 'twas simple trimming.

The wheels compos'd of crickets' bones,
And daintily made for the nonce,
For fear of rattling on the stones,
With thistle down they shod it:
For all her maidens much did fear,
If Oberon had chanced to hear
That Mab, his queen, should have been there,
He would not have abode it."

The fairies since Drayton's time seem to have undergone a great change in character, until most people have come to think that they can only be found in hoops and crinoline, and, although probably more tangible than the poetical prototype, still none the less bewitching.

Before dismissing Drayton's *Nymphidia* and his fairy coach, we would remark, that, living in the reign of Queen Elizabeth, at the period he wrote—coaches having been just introduced into England—he has, no doubt, been influenced by the popular mind, and so given vent to his fancy in a poetical fiction.

Passing by other *poetical* coach-manufacturers, we come down to the days of the Pilgrim Fathers, when, as Josselyn says, in his *Rarities of New England*, "There be no beggars in this country, but witches too many;" yet too poor to ride in coaches in a country where none were built. It has been charged that some Irish Presbyterians, who settled in New Hampshire, about 1720, brought from the "ould counthry" both witches and potatoes; but, while the latter took root and grew, the belief in the former was soon "played out," or else the "fairies," finding no peace from seeing so many horse-shoes nailed to the door-lintels of the Yankees, suddenly decamped. These "sprites," in latter days, instead of playing in the meadows among the tall grass in the summer evening, seem to have betaken themselves to more airy regions, where, as Drake says, the culprit *Onphe*, after having broken his vestal vow by "loving an earthly maid," was summoned to judgment, and sentenced for his crime to follow a shooting star—

"To follow it fast, and to follow it far;"

a very hard sentence, we opine, and so probably thought the fay, who immediately

"——Called the sylphs who hovered there,
And bade them fly and bring him straight
Of clouds condensed *a sable car*."

A lady, for once, doing as she was bid, tied the harnessed steed "behind a cloud," where, mounting the car for a ride,

"Northward away, he sped him fast,
And his courser follows the cloudy wain,
'Till his hoof-strokes fall like pattering rain.
The clouds roll backward as he flies,
Each flickering star behind him lies,
And he has reached the northern plain,
And backed his fire-fly steed again,
Ready to follow in its flight
The streaming of the rocket light,"

Until he

"——Wheeled around to the fairy ground,
And sped through the midnight dark."

Where we shall leave him and our *fanciful* subject at the same time. S.

[Translated from the *Mercure Universel*, for the New York Coach-maker's Mag.]

ON THE CENTRALIZATION AND MANUFACTURE OF CARRIAGES.

ENGLAND, AMERICA, FRANCE.

IN view of what this Journal has frequently had to encounter, we are compelled to pen the following article. We intend to speak of an enterprise based on extensive operations, and on a large scale, to induce the belief that, in the face of such large establishments, small manufacturers would have nothing to do but to fold their arms, or to come, in all humility, asking for situations in them.

When the like attempt was made in Paris, the persons in possession of the establishments in this line of business could not find much employment, but the fear of a ruinous opposition has never lasted long here, and even those who were not as yet frightened, soon found out, by the failures of these inconsiderate enterprises, that this mode of invasion is not so much to be feared as one might suspect, where the matter is not thoroughly investigated. In England these fears might have been, or appeared, more serious under some circumstances, on account of the elementary means not being the same in many things. However, in spite of many circumstances, the enterprises of this line on the other side of the channel have never been able to annihilate the small manufacturers of private carriages.

A period of time is within our remembrance, when these small manufactories were more seriously threatened in their existence. It was in 1834. The English carriage-makers were alarmed. They thought themselves on the verge of ruin, in consequence of the centralization which was organizing in certain parts of the kingdom, for the manufacture of private carriages. They loudly exclaimed, "Was it not sufficient that we should have submitted to the influence of new fashions in circulation by railroads, without these organizations being formed to give us opposition?" They said, "See those manufactories which are established at Sheffield, Wolverhampton, and in many other places; their object being to construct pony chaises for parks, and cabs with low wheels for cities, it being known that in England vehicles with low wheels do not pay any duty—they intended to have them manufactured by the hundreds and thousands, and then sell them at low prices, because they will find, in the manufactories and elsewhere, springs, axletrees, &c., and then we shall have nothing more to do." It was soon seen who was to be most pitied. M. Guillon, who was among those gentlemen at that time, even saw some fall into a state of despondency. Some thought of letting part of their factory; others were waiting to see if the moment of their entire ruin had not commenced. But, as it generally happens in such oppositions, these persons had been frightened without a cause.

The following has proved that it is not the same with carriages as with railroads, and that the railroad cannot create itself a new existence to the detriment of the more ancient mode of travel in usage before it. A large carriage manufactory is different from one resting on smaller developed proportions.

These reasons are attributable to causes which do not enter into the plan of our publication. Let us confine ourselves to say, that, to exercise the art of carriage manufacturing in perfection, one must, at least, be an artist in that line; and that the greatest merchant in the world,

if he takes a fancy to found a factory of this kind, will find himself mistaken, which has been the case with many extensive carriage-makers.

After having had misfortunes, these large establishments have gradually been seen going behind-hand; the second year they built omnibuses; the third agricultural wagons, so as to work up their materials and tools; and the fifth they emigrated to Louisiana, for the purpose of dissimulating or lessening their misfortunes; so as to leave the English practitioner, who was more fitted to discharge the difficult trade. For these reasons these strengthened themselves in their position.

The general exhibitions of 1851 and 1857 have shown the progress which has been made in the years since the departure of the great contractors who emigrated. These carry on their operations on a smaller scale.

Let us here continue the subject of these large manufactories on the American Continent, and try to show to what point this mode of proceeding will quickly tend, and show that it will prove as unfortunate as well in the countries they emigrated to, as certain admirers of all that is charming, who carry their money like fascination, led away by the seductive music of the prospect, generally losing it in inevitable troubles of various kinds. At New Orleans, —the principal city of Louisiana, built on the oriental banks of the Mississippi (this city is very unhealthy, but commercial)—has already commenced, in imitation of New York, the manufacture of carriages suited to its locality.

Possessing iron, steel, and a good quality of wood that can be easily used, without doubt the carriage-makers of New Orleans would have made beautiful work, if those adventurous *negotiants* had not gone and carried *mercantilism* among them, to take the place of the comfortable, strong and solid, so that the carriage manufactories of that city resemble the shops of tinsmiths. In them you see shelves, with hooks, on which carriages are hung, and others are suspended upon the ceilings, if it is allowable to give the name of carriages to such imperfect vehicles, which persons only buy when they are on the eve of a voyage, without stopping to ask if they are strong enough to support a few persons. For example, should you wish to have yourself transported to Nashville, or into the interior, you enter a bazaar, you choose a carriage, they lower it down, and if it does not suit they hoist it up again; and this is repeated until you have chosen one to suit you.

The price of the whole concern is never very high; you can easily obtain a carriage, harness and horse, all new (excepting the horse) for 250 francs, which is equal to fifty dollars. As the roads are bad, precautions are taken; there are placed in a little box a few ropes, which will enable you to refasten the parts that may break on the road. Experience has demonstrated that steel springs are very susceptible of being broken; they will tell you for that reason they have made them of ordinary iron, and the axles of cast, and other different parts of the same material; the whole put together by a stroke of the hammer. The parts which are made of wood are considered the best in the world. It is from thence that New York draws that good beech which is used in cabinet making. The quality is superior to the *fagus procerœ* of Naples, and to the *beech-tree* of England and France. The rims of the wheels in New Orleans are made of lance wood (*bois de lance*) or live oak. We must not compare it with the lance wood of England, which is nothing but ash, nor with that of the Bouches-du-Rhône. The difference is worthy of note. The hubs of the Louisiana wheels are made from the *yoh elm tree*, similar to the elm of France, and the *carpinus* of the Two Sicilies. The spokes are of chestnut, resembling the chestnut of France. These wheels are very light and high, tired with bolts, which renders them elastic, and prevents one from being jolted while traversing the inequalities of the road. Such is, according to our judgment, the state of carriage-making in America. When a rich man of that country wishes to get a superior vehicle, it is generally at Paris that he addresses himself to find what he wants.

We make these reflections on a rumor, well founded or not, which is circulating on the subject, that there are going to be grand establishments on a new plan, which will start with a large capital, just like a fearful rival for the establishments already in operation. We have our eyes open to these *leviathanic* projects, and we shall continue to notice in our paper the events which may follow on this subject.

We shall have occasion to pass in review the different enterprises in this category, which only appear and disappear; the subject being well digested and properly conducted.

In concluding this article, let us say, in giving assistance to its publicity, that by a competition between carriage-makers we are laying the foundation for a permanent construction, on a rational basis. The Editor of the *Mercure Universel* does not intend to give up his liberty to criticise. He ought to retain it. He will know how to preserve it for the interests of the art. We shall continue, then, to second the artist and the conscientious practitioners, always resolutely defending them against speculative susceptibilities, and the lessening of the good taste which distinguishes our nationality in all things.

For the New York Coach-Maker's Magazine.

THE THREE-FOLD NATURE OF MAN.

BY CHARLES C. KEYS.

NO. I.

THE greatest variety and complexity exist in the works of creation. This is apparent in every department of nature. The earth, the sea, and the air teem with the countless productions of Infinite skill, and, under ten thousand forms, exhibit the perfections of Him "by whom all things subsist." The mineral strata, forming the crust of our globe, is constituted of many essential parts, materially differing from each other, and serving the different purposes which accord with the design of the Great Contriver. The same diversity is to be found in the vegetable kingdom. Trees, plants and shrubs, of every size and every hue, and serving a multitude of purposes, are to be found in every direction upon the face of the earth. Every land and every climate help to make up the beautiful variety which this department of God's works presents to our view. And the animal kingdom equally, if not to a greater extent, abounds with the multitudinous productions of Almighty power and Divine wisdom. Organized life, in the greatest multiplicity of forms, everywhere appears, from the meanest insect or reptile, up to the more noble creature which was "made in the image of God." And when we come to consider our own nature, we do not find it to be a unit, strictly speaking, a simple whole, but a most curious piece of mechanism, made up of many parts, extremely intricate in their arrangement and construction, exhibiting at every turn the contrivance and design of their Author, and fulfilling ends

the most various and important. And this is true of the whole machinery of man, of his complex nature. Upon inspection we find him to be, not merely an organized body, but a living soul, a moral and intellectual being. This truth is not, however, ordinarily perceived, or, if perceived, it is not considerately weighed and nicely apprehended, in a manner corresponding with its deep interest and high importance, or with the influence which such a view, when properly entertained, must of necessity exert upon our general character, including our moral and intellectual tastes, with all our habits of thought, feeling and action.

Man's sensual nature generally attracts most of his attention, and although much inferior to his intellectual and moral nature, yet it engages the principal part of his time and commands his affections as a chief and supreme concern. "What shall I eat? and what shall I drink? and wherewithal shall I be clothed?" are the inquiries that engross his mind and engage his heart. Thus one part of our nature has more than its due share of attention. We are prepossessed in favor of the interests of the body, at the expense of the mind and heart. Now, we are opposed to an error so general, and advocate the claims of our nature as one great whole, and in all the parts of which it is composed.

A primary and most obvious duty which every man owes to himself, and in the performance of which his highest interest and happiness are involved, is self-knowledge. A man must know himself, the prominent traits of his character, and the distinctive peculiarities of his nature, or he will not know the treatment which his being demands, nor the culture and development of which it is susceptible, nor the duties which grow out of the varied and multiplied relations of life. He should know something of his physical structure: how *curiously* it has been *wrought*, how *fearfully and wonderfully*, as a piece of animated mechanism, it has been *made*. He should become familiar with his mental constitution; with its wonderful endowments, and all-but divine attributes. This department of his being should engage attention, as embracing the faculties of perception, judgment, imagination, memory and whatever other powers belong thereto. And his moral nature, as intimately connected with the intellectual and as having distinguishing characteristics of its own, of peculiar value, should not be passed by as unworthy of regard. To man, as a moral being, belongs the faculty of distinguishing right from wrong, the power to choose between the one and the other, and the exercise of the various affections, either malevolent or benevolent, together with the responsibility arising from the possession and use of these faculties. And surely this is too important a department of our nature to be overlooked, and we are inexcusable for any indifference or neglect which on this score may be entertained. The ancient maxim, "know thyself," having for its author, Solon, one of the seven wise men of Greece, and worthy of his name, should be received and acted upon by every individual who wishes to answer the great purposes of his existence. And this maxim we should receive in its most enlarged acceptation, as enjoining a familiar acquaintance with every department of human existence. We have a world to explore within ourselves, and here is sufficient to excite our curiosity and to engage the exercise of our highest powers, without extending our view beyond the limits of the circle thus described. It has been well said by one of the English poets,—

"The proper study of mankind is man."

And this should be one of the first studies to engage our attention. We therefore recommend investigation and study, to as great an extent as circumstances will permit, in those departments which embrace the anatomy and physiology of the human system, together with mental and moral philosophy: these three departments of study making us acquainted with the three great departments of our compound nature. And whatever our sphere of life, by husbanding our opportunities, and improving our leisure time, we may make no small attainments in these interesting branches of knowledge, and be amply rewarded by our self-culture, and the increase of rational enjoyment, for the labor and time expended in these pursuits.

In a future number, if the present article is acceptable, I may pursue this subject, by additional observations on the studies herein suggested, and the duties which man owes to himself, as a compound being, made up of "soul, body and spirit."

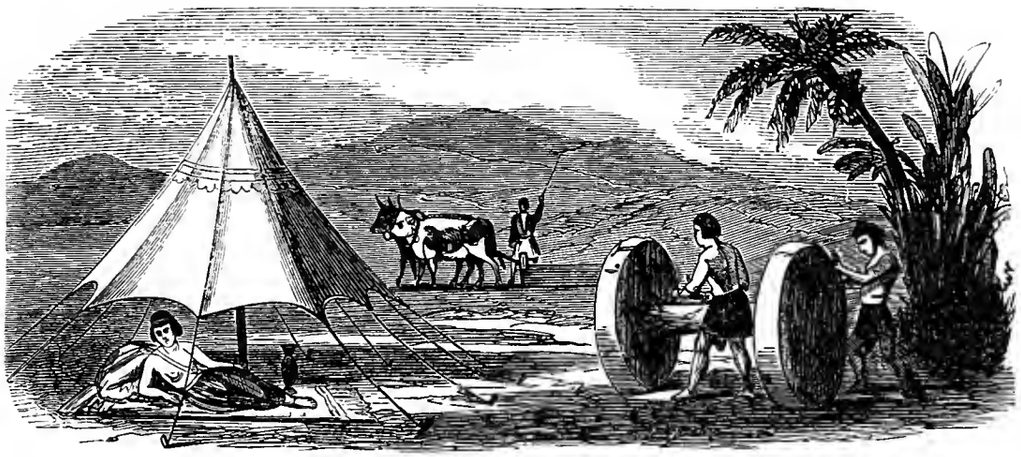
A NEW MACHINE FOR PLANING SMALL WORK OF IRREGULAR SHAPES has been invented by an ingenious mechanic of New York city. It is principally intended for planing neat small jobs, which are inconvenient or impossible to hold on the ordinary iron planer, but can be griped in a vice, such as stub-ends, straps, gibs, keys, cams, &c. Such work as requires to be planed in different directions, with a perfectly level surface, may be finished in this machine with great accuracy, and without letting go of the work until all parts of the plane surface are perfected, the work being firmly held in a vice made to swivel around in any position without loosening its hold. Some of these machines have for several months past been in use in Brooklyn, and are said to be much admired for the perfection with which they execute work which had been previously considered almost or quite impossible.

OMNIBUS TRAFFIC IN LONDON.—The number of passengers conveyed by the London General Omnibus Company within the year from September 19th, 1856, to September 19th, 1857, averaged thirty-seven millions and a half, or at the rate of nearly three-quarters of a million weekly. The number of passengers "corresponding" at one office alone (the Cheapside,) averages 1,600 daily.

COACH-MAKING IN SAN FRANCISCO.—Very little new work is manufactured there, and the jobbing is chiefly confined to two establishments. Wood-workmen get from $3 to $4 per day; wheelwrights, from $4 to $5; blacksmiths' firemen $4 to $5; helpers, $2 50 to $3. The markets at last dates were over-stocked with manufactured work from the Atlantic States, rendering the exportation non-paying to shippers.

TRAVELING IN THE 16TH CENTURY.—One of the earliest advertisements for the conveyance of passengers by post-coach in England is in the "*Mercurius Politicus*," of April 1st, 1658. "Passengers by stage to Bantry, in three days, for thirty shillings. Before this there was a pre-established and comparatively efficient system among merchants and others for private purposes."—*Lon. P. O.*, 1842.

A "DISPATCH OIL SOCKET AND AXLE CLEANER."—This is a recent English invention. The "cleaner and oiler" is intended for application to all carriages, omnibuses, &c., &c. The invention consists of a small socket recess, so let into the hub of the wheel near its spokes as to be very easy of access and convenient for oiling.



WHEEL-MAKING IN NOAH'S DAY.

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.*

CHAPTER I.

INTRODUCTORY.

ALTHOUGH several attempts have heretofore been made to supply the historical digest we now design to furnish to our readers, viz.: a general and standard history of coach-making from an early period of its conception down to the present time, still, we believe it yet remains an impossibility to find in the whole range of literature—vast and diversified as that range is—a complete and satisfactory history such as we intend to give in the pages of this Magazine during the year, under the heading of *Coach-making Historically Considered and Incidentally Illustrated.*

We have long made it a particular study of our leisure hours, to try and find out, from the remains of ancient sculpture and painting, as to how our predecessors put their vehicles together, and especially as to how they constructed their wheels. Fortunately for our purpose, within a few days we have accidentally stumbled upon a "suitable specimen" of the *genus* chariot, among Dr. H. Abbott's collection of Egyptian Antiquities at 659 Broadway, New York. It is true this specimen remains only in fragments, still the wheel is found in a remarkable state of preservation and perfection, as it was taken out of a mummy pit at Dashour, in Lower Egypt, and sent to this country by our industrious and indefatigable countryman, many years a resident of that ancient city. As this is a very early production, very probably a cotemporary, if not built before the time of Abraham, we are taking especial pains to have a correct drawing taken of it, and in such profusion as shall, with our description, give our fellow-craftsmen an intelligible account of it, possibly in the third chapter of this series. These, with engravings of later representations of improved vehicles of ancient manufacture and of more modern times, will constitute a feature in our history which cannot fail to interest our subscribers.

It is scarcely necessary to inform the intelligent mind, that our knowledge of coach-making does not date further back than the days of the Pharaohs of Egypt—as supplied to us in Sacred Writ—where the chariot, the undisputed predecessor of our modern coaches, was driven out, in all the perfection and splendor of that pristine people, from an hundred gateways in the walled city of Thebes, to do fierce battle with surrounding nations, and where, after her splendid victories, her triumphant conquerors led the subdued and subjugated enemy prisoners, bound to the tail of the chariot of her kingly ruler.

We are warranted in our belief that Egypt, at the remote period in her history to which our remarks refer, had, in her advanced state of civilization and refinement, brought her vehicles of transportation for her warlike utensils, as well as those of more domestic life, to a very high state of perfection. In this perfection Egypt continued to advance until her final declension.

From Egypt the chariot passed into Assyria, where it continued to be a prominent feature in every warlike expedition, and afterwards having been adopted into the Persian dominions, under Cyrus, its distinguished ruler, it underwent in its formation a complete revolution. Afterwards the chariot was adopted by nearly all the more civilized nations of Europe, until, as we learn from the refined and classical descriptions of Julius Cæsar, it was employed as a powerful and valuable auxiliary in every warlike nation of his times. Since the advent of the Saviour of mankind, in accordance with his mission of "peace and good-will to all mankind," this dreaded precursor of the coach appears to have gradually disappeared from among the civilized nations of the world, so that, during the period of time we are accustomed to designate as the dark ages, history seems to have scarcely presented to our minds a trace of its existence. Afterwards, as the teachers and advocates for freedom of thought had successfully spread abroad their principles, which permitted man, as his Creator intended he should, to think and act for himself, we find, emerging from the debris of ignorance and superstition, this emblem of civilization, the chariot, having reappeared in a transformation at once wonderful and characteristic. We have taken upon ourself the task of presenting in regular succession its history as presented in Italy, Germany, France, and in England, and finally in America, where, for the last twenty years, our improvements have gone on with such rapid strides, that we hazard nothing in asserting that the nations of the old world are left far in the distance; and although this *may* be denied by those Europeans who have never set foot on our shores, those of our countrymen who have vi-

* The original illustration which stands at the head of this article will be better appreciated when the reader comes to see the continuation of this subject in the July number of the Magazine.

sited the manufactories of the Continental cities in Europe, and are by their qualifications supposed to be good judges, testify that such is the fact. We do not wish to be understood as teaching that we have nothing yet to learn, as coach-makers, in America. Far from it, and when, as we certainly will, we find an idea emanating in the old world, and worthy of imitation, we shall not be backward in presenting it in our columns. With these introductory thoughts, we leave the subject here, intending to resume it in our next number. S.

OMNIBUS CONVEYANCE IN LONDON.

THE internal conveyance communication of London is conducted by means of 800 omnibuses, 595 of this number being worked by the recently formed "London General Omnibus Company." When this great company began business, the promoters purchased 600 omnibuses then running, with horses, harness, and goodwill, for £400,000, averaging nearly £700 for each. A quarter of a century has sufficed to increase the traffic requirements from 100 to more than 800 omnibuses; and a company employs profitably a capital of one million in working three-fourths of the vehicles of the metropolis. The 595 omnibuses of the company ran in London, in the week ending October 31, not less than 222,779 miles, or nearly ten times the circumference of the globe, and they carried not less than 920,000 passengers, which was equal to two-and-a-half times the population of Liverpool, three times that of Manchester, four times that of Birmingham, five times that of Leeds, seven times that of Bristol, and eleven times the whole population of Hull. Assuming that the remaining one-fourth of the London omnibuses, not belonging to the company, carried an equal proportion, we shall have, as the traveling portion of the population of London, 1,115,000 persons. The population of London at the last census was 2,362,000, so that a number equal to very nearly one-half of the people of London ride one journey in an omnibus in each week. In a fortnight the whole population of London would be moved in the omnibuses now running in the metropolis. The omnibuses are worked by 6,225 horses, the average cost of each being £30, making a total of nearly £200,000. The harness averages £12 per horse, and the omnibuses themselves, £120. A week's allowance of provender for this staff of horses consists of 430,266 lbs. of chopped hay, clover, and straw, equal to 242 loads, and 623,253 lbs. of oats, barley and beans, or 2,376 quarters, and 175 loads of straw are required for the bedding of the horses. Each horse runs on an average 12 miles per day. The daily cost of the rations of each horse is rather more than 2s. 1d., or for the horses of each omnibus, 10 in number, £1 1s.; the other expenses, such as horse-keepers, veterinary service, shoeing, and others, bring up the total expenses for the horses of each omnibus to £1 6s. per day. The number of men constantly employed as drivers, conductors, and horse-keepers, is not less than 2,300, of whom the drivers receive from 5s. to 6s., the conductors 4s., and the horse-keepers, 3s. per day. The "wear and tear" of each omnibus amounts to 17s. 6d. per week, and of the harness, 6s. per week. The 595 omnibuses run over 66 different routes; and, for facilitating the traffic, "correspondence offices" are established at Whitechapel, Cheapside, Bishopsgate, Regent Circus, Nottinghill Gate, Edgeware Road, Brompton, Highbury, and Holloway. By means of this arrangement a person may travel from Kilburn to Chelsea for 6d., from Putney to Blackwall, or Hammersmith to Holloway, the distance in each case being 11 miles, for 6d., and 35,000 persons avail themselves each week of these "correspondence offices." The average weekly receipt from the whole of the omnibuses is £11,500; but the state of the weather materially affects the receipts—thus a very wet day reduces the amount received by from £300 to £400 per day. On the 22d of October, owing to the continuous rain, the receipts fell short of the usual amount by £380. The government duty and licences for the last year were £33,000, while the sum of £18,000 was paid for tolls on the different roads run over by the omnibuses. Contrast all this with the fact, that a little more than 200 years ago, 20 hackney coaches were first permitted to run in London streets, being the earliest means of public conveyance. The company has been so successful that it is now about to expend surplus capital to the extent of £50,000 in laying down tramways for omnibuses in certain of the leading thoroughfares of the metropolis, where the width of the road is sufficient to admit of the experiment without risk of interference with the ordinary traffic. We are, therefore, at length, about to join in the advantages which street rails have already conferred on New York, Boston, Paris, and Lyons, where such tramways have been at work for several years with the highest degree of success. The part of the metropolis on which the experiment is about to be tried commences with the road from Nottinghill Gate, *via* the Grand Junction Road, New Road, City Road, and Moorgate Street to the Bank, with branches to the Great Western, and London and North Western Railways, and to Fleet Street, *via* Bagniggewells Road. The length of this line with sidings will be about eight miles and a half, and the road, with the exception of the inclines at Pentonville, is broad and eminently qualified for the trial. In the event of its success, the company next contemplate the extension of the plan to the road from Edmonston to the city, by way of Kingsland and other parts of the metropolis. The tramways when laid will be perfectly flush with the general surface of the roadway, and will not in any way interfere with the passage along and across it of any ordinary road wagon or carriage; and as the new omni buses in passing along will be confined to the tramway, which will consist of a double line in the centre of the roadway, the sides of the road, and indeed the entire width, except during the instant of passage, will be free to the general traffic, which will thus be carried on without interruption. The great economy which will be effected by the adoption of the new tramway system will enable the company to carry the public at reduced fares, and at a greater rate of speed. The omnibuses will be large and commodious, with flanged wheels and axles radiating to the curves, and, if found desirable, might be constructed with first and second class apartments. The net annual profit to be derived from the tramway traffic has been estimated at £11,073—that is, on the route on which it is proposed to make the experiment—which will be equal to 22 per cent. on the capital of £50,000. The project is to be carried out by a company, with limited liability, entirely distinct from the London General Omnibus Company—the latter subscribing in shares to the new company, to the extent of £50,000 in aid of the undertaking. The facility for starting and stopping the tramway omnibus with improved brake will be quite as great as the

ordinary road omnibus, so that there will be no loss of time on this account. It is this power in horses, of starting or stopping almost instantaneously, which makes the tramway for short distances and frequent stoppages equal, if not superior, to the railway with steam power. If the system of fixed stations or stopping-places along the route were adopted in lieu of stopping at the wish of every passenger, much time might be saved; but in New York the tramway omnibuses stop wherever they are required to take up or set down passengers, and no inconvenience is found to arise from this system of working them. The probable cost of laying down the tramways as double lines, including the expense of taking up and relaying the pavement, is estimated at something less than £3,000 per mile.

Pen Illustrations of the Drafts.

NEW YORK OPEN-FRONT BUGGY,

From the establishment of Messrs. Dusenbury and Vanduzer, N. Y.
Illustrated on Plate I.

THE celebrated manufacturers have in the kindest manner permitted our artist to take this draft of a very light, and, as we think, a very elegant Buggy in their establishment, which we hope will be acceptable to every friend of our new enterprise. Probably, in the strictest sense of the word, it cannot be called entirely new—something of the kind having appeared, occasionally, heretofore; and yet it *is new* in some of its details, and, withal, quite popular just now in this city and vicinity. The square-bodied, or box buggy, now some time in fashion, appears to have about had its day, since the ladies—you know we *must* study their tastes and conveniences sometimes—are decidedly hostile to all vehicles which give them much trouble to get into or out of, with high sides—especially such as have hooped themselves in in crinoline. Our New York buggy is, then, a sort of deferential compromise to their wants, and is likely this season to be very popular, and is *now* being much sought after.

Many are made without tops, with paneled boots at the back of the seat. The sides are made in one piece of whitewood or black walnut deals, and moulded off with prepared rattan, &c., according to the fancy of the manufacturer or of his customers. The fashion here is to put in the smallest hub possible—say, 3 and 3¼ inches; spokes ⅞ and 1 inch; rims, 1 and 1⅛ inch; with tire for no tops, ⅛ x 7-16ths. For these tires Mr. Saunders has shown us a beautiful description of steel, invented recently in England, and it is just as easily bent and put on the wheel as the softest iron. The details of the trimmings are about the same as heretofore, but, if anything, with a greater profusion of white stitching, especially on the tops. As a matter of interest to some, we subjoin a table of the approximate first costs in getting up first-class work of the above description:—

The body—material for, including seat, $3 50; making, $8	$11 50
Carriage part (including shafts)	7 50
Wheels—materials for, $6 91; making, $4	10 91
1 in. axles, $7 50; springs, 34 lbs., at 16c. $5 44	12 94
Iron for balance, including bolts, shaft couplings, &c.,	10 00
Smith work, including piecing out joints	17 00
130 ft. leather, patent and enameled, at 18c.	23 40
4½ yards broad cloth, for head linings, at $2 25	10 13
4 yards fringe, 50c.; 1¾ yards silk, for curtains, 90c.	1 40
2⅛ yards broad lace, in top, at 55c.	1 17
Hair, moss, harness leather, thread, galloon, muslin, buckram, buttons, &c.	4 25
1 yard oilcloth	50
Carpet and fringe	1 50
Apron, 2½ yards enameled cloth	1 38
Bows and slat-irons, say	1 00
Prop-irons and plated nuts, 66c.; shaft tips, 37c.	1 03
Knobs, buckles, apron hooks, &c.	40
Several small articles, not enumerated above	1 75
Trimmer's wages	18 00
Painting—paints, $2 50; labor, $14	16 50
Hub-bands, $1 75; plating dash, $1 25; do. axle nuts, 50c.	3 50
Other contingencies—files, boxing wheels, &c., &c.	15 00
	$170 76

These buggies sell for $225 to $250, according to the finish.

LANDAULET.

Illustrated on Plate II.

The Landaulet illustrated in this No. is but little known in this country. The one from which our sketch is made was built by a New York firm for a gentleman in a neighboring city. In England, however, and on the continent, it is used in the public parks as a dress carriage, and when thrown entirely open presents a very stylish and elegant appearance. We annex an estimate of the cost of a carriage of this description—not so much in detail as we could wish, owing to our limited space, but the total, we believe, will be found to be correct.

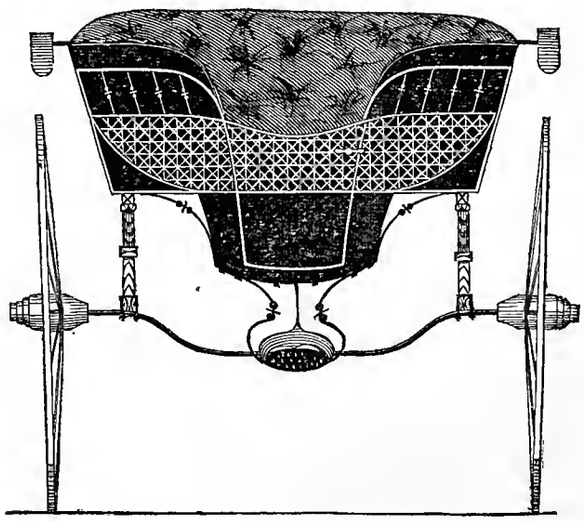
Labor—making body, with framed bows	$95 00
Material in body, including wood, locks, hinges, rocker plates, glue, schrim, screws, &c.	45 00
Ironing	52 00
Carriage part and pole, material & labor.	16 00
Opera board, $2 50; wheels, $16; carving block, brakes, bar and brackets, $10;	28 50
Boxing wheels, fitting bars, and other jobbing	5 00
Springs, $23; axles, $16; iron tires, bolts, and collars, $18	57 00
Coal, oil and files, $6; painting and material, $65	71 00
10½ yards coteline, $47 75; 31 yds b. lace, $15 75; 100 do. narrow lace, $9	72 50
3 yds. curtain silk, $4 50; curtain fringe, $1; 5 inside bullion holder tassels, $6 25	11 75
Rug fringe and binding, $1; 24 lbs. curled hair for inside, $8 88	9 88
8 lbs. moss, for dicky cushions, 72c; cotton cloth and seat lining, 75c.	1 47
Curtain and trigger tassels	1 12
Carpet and oilcloth, $5; buckram, paste, tacks, thread, &c., $5 50	10 50
Black cloth for glass frames, $2; silk tufts, $3; 3 spg. barrels, $3	8 00
Speaking tube, $5; skirting, harness and cushion leather, $11	16 00
Cushion bottoms of cloth, $1; 67 ft. top leather, $12 16	13 16
2 frogs	50
Back light, 50c.; hub-bands, $4; inside and outside handles, $5 50	10 00
Lamps, $30 00; moulding and finishing, $2 50; hook and crab, $6	38 50
Plating seat rail and toe-board handles	5 00
Capping nuts, 75c.; stump joints, $1: 3 lights, plate glass, $12	13 75
Trimming entire	40 00
Finishing	8 00
	$629 63
Add 10 per cent.	62 96
	$692 59

CHAR-A-BANC.

Illustrated by Plate III.

The name of this vehicle, which is French, is doubtless derived from the French words, *char*, a car, and *banc*, a bench, and is expressive of the idea of its being a carriage constructed with seats extended along the sides. The original draft, from which ours is taken, was drawn by Mr. Fred. Wood, of Bridgeport, Conn., a gentleman of talent and taste, to whom the public is largely indebted for many of the improvements made in the carriages of this country, of late years.

This very fine draft, of a very fine Char-à-banc, and which was a prominent article in the carriage department of the late fair at the Crystal Palace, New York, has been kindly furnished to us, for our magazine, by the manufacturers, Messrs. Wood Brothers, 446 Broadway. These gentlemen, we learn, have disposed of several, lately, of this pattern, which is found to be a very convenient carriage for summer watering-places, or country boarding-schools. They sell this carriage for $600 to $650, according to the expenditure laid out in the production. The details are sufficiently explained by the side and back views which we give, and we need only add, that in the example above spoken of, the linings were black enameled leather, body painted blue, carriage yellow and striped with black. The top is so arranged that, as seen above, it may be taken off at pleasure, and thus constitute it an open carriage—sociable, roomy and airy.



Sparks from the Anvil.

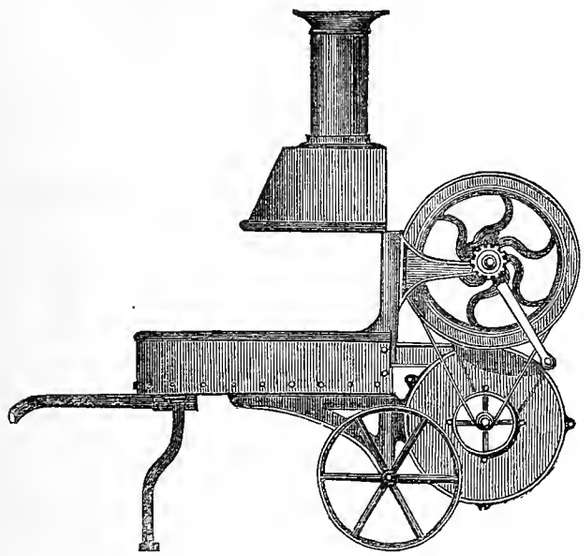
A NEW AND PORTABLE FORGE.

THE forge here illustrated may not be generally applicable to coach-making purposes in America, yet there are some instances—such as a loft in some crowded city—where it may be found very convenient, especially if located near a building where steam power may be had. At all events, it will doubtless be suggestive and prove of interest to many of our readers, and we therefore place it among our Sparks from the Anvil, for their inspection.

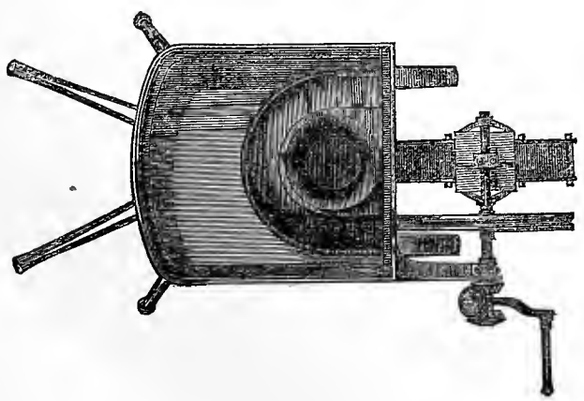
These figures represent, respectively, a side elevation and plan of a portable forge by Messrs. Benjamin Hick & Son, of Bolton, Lancashire, England. The hearth of this apparatus is a shallow rectangular chamber, with the front end

rounded off, supported on a pair of expanded legs, and two front running ground wheels, the axles of which are carried by cast-iron brackets bolted to the bottom of the hearth. The forging blast is derived from a small fan set in a case attached to the hearth framing near the wheels—the air duct from the blowing case being led into the back end of the hearth at the centre.

The fan is driven by a winch handle, connected by a triple bevil pinion arrangement, with an upper horizontal primary driving shaft, running in bearings on one side in a bracket attached to the hearth back, and at the other in the top of a standard bracket springing from the top of the fan case. This first motion shaft carries a fly wheel pulley, from which an endless band passes over a small pulley on the fan spindle. This arrangement of gearing affords the necessary high blowing speed in a very simple and straightforward manner, for the triple bevil pinion combination acts as a "sun and planet" wheel train, the winch lever being attached directly to the intermediate bevil pinion, so that in its revolution round the axis of the first motion shaft,



whilst it gears with both of the other pinions—one of them being a fixture—it gives a double speed to the shaft; and the fan speed is subsequently multiplied by all the difference between the diameters of the large fly wheel pulley



and the actual fan pulley. The hearth is fitted at its front end with a pair of wooden transporting handles, and the fire is covered by an uptake shield, terminating in a neat chimney, for insuring the necessary draught.

Paint Room.

HARMONIZING OF COLORS.

If there is any one subject in which the painter is more deficient than another, it is in the harmonizing of his colors. How frequently do we see a finely painted job entirely spoiled, in its effects upon the eye, by an injudicious application of the stripe, or the touching up of the carved work, often imparting to the whole carriage a coarse and cheap appearance. In hope that by a proper attention to the subject our readers may be benefited, we shall present them with an extract from a lecture recently delivered before the Royal Institution of England, by Mr. F. Crace Calvert, which he very modestly described simply as "On M. Chevreul's Laws of Color."

The subject was evidently quite new to most of the audience, who, in the usual way, expressed their pleasure at the constant surprises which his observations afforded. He first gave a clear and concise explanation of the received dogmas on the composition of light, which he rendered sufficiently novel by his original method, and a succinct history of the subject, with particulars of the successive laborers in the field. He alluded more especially to Father Schœffer, a monk who early wrote on the laws of color; to Göethe, the poet, who had studied it to a great extent; and to Count Rumford, who, about the end of the eighteenth century, published several memoirs on these laws. Count Rumford had explained very satisfactorily the "successive" contrast, and arrived at some insight into the "simultaneous" one, although he did not lay down its real laws. Prieur, Leblanc, Harris, and Field were also writers of most interesting works on the subject; but none of them had divided the laws into successive, simultaneous, and mixed contrasts, which really formed the basis of the practical laws of color. The honor of their discovery is due to M. Chevreul. The "successive" contrast has long been known. It consists in the fact that, on looking steadily for a few minutes on a red surface fixed on a white sheet of paper, and then carrying the eye to another white sheet, there will be perceived on it, not a red but a green one; if green, red; if purple, yellow; if blue, orange. The "simultaneous" contrast is the most interesting and useful to be acquainted with. When two differently colored surfaces are in juxtaposition, they mutually influence each other—favorably, if harmonizing colors, or in a contrary manner, if discordant; and in such proportion, in either case, as to be in exact ratio with the quantity of complementary color which is generated in the eye. For example, if two half sheets of plain tinted paper, one dark green, the other of a brilliant red, are placed side by side on a gray piece of cloth, the colors will be mutually improved, in consequence of the green generated by the red surface adding itself to the green of the juxtaposed surface, thus increasing its intensity. The green in its turn augments the beauty of the red. This effect can easily be appreciated, if two other pieces of paper of the same colors are placed at a short distance from the corresponding influenced ones, as below:—

RED. RED GREEN. GREEN.

The lecturer observed that it is not sufficient merely to

place complementary colors side by side to produce harmony of color, since the respective intensities have a most decided influence: thus pink and light green agree, red and dark green also; but light green and dark red, and pink and dark green, do not. Thus, to obtain the maximum of effect and perfect harmony, the following colors must be placed side by side, taking into account their exact intensity of shade and tint:—

Primitive Colors.	*Complementary Colors.*		
Red	Green . . .	Light blue, Yellow, Red,	White light.
Blue	Orange . . .	Red, Yellow, Blue,	White light.
Yellow-orange . .	Indigo . . .	Blue, Red, Yellow,	White light.
Greenish-yellow .	Violet . . .	Red, Blue, Yellow,	White light.
Black	White . . .	Yellow, Blue, Red,	White light.

If attention is not paid to this arrangement, colors, instead of mutually improving each other, will lose in beauty. Thus, if blue and purple are placed side by side, the blue throwing its complimentary color, orange, upon the purple, will give it a faded appearance; and the blue, receiving the orange-yellow of the purple, will assume a greenish tinge. The same may be said of yellow and red, if placed in juxtaposition. The red, by throwing its complementary color, green, on the yellow, communicates to it a greenish tinge; the yellow, by throwing its purple hue, imparts to the red a disagreeable purple appearance. From the "mixed contrast" arises the rule that a brilliant color should never be looked at for any length of time, if its true tint or brilliancy is to be appreciated; for if a piece of red cloth is looked at for a few minutes, green, its complementary color, is generated in the eye, and, adding itself to a portion of the red, produces black, which tarnishes the beauty of the red. This contrast explains, too, why the tone of a color is modified, either favorably or otherwise, according to the color which the eye has previously looked at: favorably, when, for instance, the eye first looks on a yellow surface and then on a purple one; and unfavorably, when it looks at a blue, and then at a purple. Mr. Crace Calvert also showed that black and white surfaces assume different hues according to the colors placed in juxtaposition with them; for example, black acquires an orange or purple tint, if the colors placed beside it are blue or orange. But these effects can be overcome, in the case of these or any colors, by giving to the influenced color a tint similar to that influencing it. Thus, to prevent black becoming orange by its contact with blue, it is merely necessary that the black should be blued, and in such proportion that the amount of blue will neutralize the orange thrown on it by influence, thus producing black. As an instance, to prevent a gray design acquiring a pinkish shade through working it with green, give the gray a greenish hue, which, by neutralizing the pink, will generate white light, and thus preserve the gray. It is obviously of the highest importance to all persons occupied with colored designs or fabrics to be acquainted with these laws, in order to know at once the exact color, shade, and tint which would produce the greatest effect when placed beside another color. Helping to this, Mr. Crace Calvert explained the chromatic table of M. Chevreul, which enabled any person at a glance to ascertain what was the complementary color of any of the 13,480 shades which the French savant had distinctly classed in his table.

PAINTERS' BRUSHES.—An improvement in Painters' Brushes has been patented recently in England. An important feature in the improvement is the saw cuts, or opening conjoined with the plates, whereby the handle may be firmly wedged and secured to the brush part.

Trimming Room.

WE are very sorry to be compelled to give but a meagre amount of instruction in this department of our magazine, for this month, but the prolonged engagement of our associate, Mr. Tousley, in the South, has rendered it unavoidable. We hope, in our next, to have his supervision of this department, for which he is more fitted than ourself, since he is a trimmer, and fully competent, both by experience and education, to do our patrons justice. In about two weeks he will be at his post, with sleeves rolled up, and awl and needles in hand, ready to do up business in his line in a proper manner.

A few general observations are added. In consequence of the continued "hard times" in this locality, but little change has taken place in the style of trimming carriages since the year has come in. We may, however, say to those who are desirous to know the New York styles, that since the stitching machine has come into common use, the most costly got-up work is profusely stitched on the boot, dash, falls, cushions and tops, with white. Occasionally we observe a job stitched with black figures exclusively, but this is generally done to please some particular customer's taste, and may be rather termed an exception to, than the fashion. There is also a disposition in some manufacturers to get up a style of work suited to the times, in which the trimmer's occupation is almost nullified; but more of this subject hereafter. S.

The next No. will contain a fine draft of a new and tasteful style of trimming—at least new to most of our readers. Our stitching-plate will also come in the next number. The present is but a pioneer sheet, to feel the way and regulate the number of future issues; so we prefer to send it forth with as few extras as possible.

We have at our command a new process by which both likenesses of individuals, and carriage designs, correct to any scale, can be photographed from the original direct upon the engraver's block. This achievement in modern science places in our hands a power, which will be made manifest in the profuse number of *correct* engravings which will embellish the Metropolitan Magazine.

The New York Coach-maker's Magazine.

JUNE 1, 1858.

E. M. STRATTON & M. G. TOUSLEY, Editors.

TO READERS AND CORRESPONDENTS.

"INQUIRER," who wants to know if there is any late work published and devoted to coach-making, is informed that we know of none later than that on English Pleasure Carriages, by Wm. B. Adams, published by Charles Knight, London, 1837. We will send it to you by express on the receipt of $2 50. Although of no value as a guide to the American coach-maker, yet it may afford you some instruction as a historical treatise, and as such claim a place in your library.

"G. T."—We have inquired at the book-stores in this city, and have not yet succeeded in finding "a treatise exclusively devoted to coach-painting in all its branches," etc. We are inclined to the opinion, that you will find in our "Paint Room," during the year, as much instruction as can be obtained from any other source.

"G. R., OF ME."—We have seen a notice of a striping machine somewhere, and believe it has been patented; by whom we cannot now say.

"A. R. R., OF O.," who hopes that we "will publish just such a Mag. as every coach-maker should have, and an honor to the craft," is assured that no pains will be spared on our part to effect so desirable an object. In evidence of our intentions, we recommend to you this first number, and hope you will—if satisfactory—recommend it to your shopmates, and labor to induce them to patronize us.—See our PROSPECTUS at the end of this number.

"C. N. M., OF O., WISCONSIN," who "offers his congratulations at the prospect of a 'New York Coach-maker's Magazine,'" is thanked for his kind suggestions, and assured that we intend to profit by them. His voluntary offer to contribute to our painting department is accepted; and we hope his favors will be as acceptable to our readers as his letter has been gratifying to us.

"A. A. McK., OF N. C.," who inquires if we "are ready to furnish charts for our trade," will please give us the size he wants; we will try and get him up a finer one than he can get out of New York, and at better rates to him, and of better patterns.

"J. C. M., OF VA."—We will furnish you, and others inquiring, with envelopes with your card and a small cut of a carriage printed thereon for from $4 50 to $5 50 per 1,000, according to the quality, at two days' notice.

NOTE.—Many friends have written us in relation to agencies—to contributing—wishing us success in our new enterprise, etc.—some of which we have answered through the mails, and others remain unanswered for want of time. All will pardon us for any seeming neglect. We intend to pay respect to all as far as is in our power. We hope our friends will send us the promised clubs—and thus send us on our way encouraged—on receipt of this number.

A WORD TO OUR FRIENDS.

THE peculiar modesty of Editors leads them to regard everybody as their friends, at least, so long as they take their publication and pay for it. We make no pretensions to any particular degree of disinterested philanthropy in placing our efforts before the coach-making public, but frankly confess, and wish it to be understood, that we engage in these duties with the hope of making it pay.

We intend to make THE NEW YORK COACH-MAKER'S MAGAZINE as useful and interesting as our limited capacities will permit, though we claim no higher degree of perfection than ordinary mortals possess. We may err in judgment, and lay ourselves open to the criticism of our fellow-craftsmen in the selection of styles, and may give out ideas believing them to be original, which others may have thought of and even mentioned before us. The minds of men are constantly in exercise, and, knowing the danger of involuntary plagiarism, a modern author naively advises his brothers of the quill to hurry and write down their thoughts, lest some one else should do so before them.

We are led to make these remarks, from the fact that we fully appreciate the position which we occupy before the craft. There is no point wherein dictation becomes so delicate a matter, as when it touches the trades by which men earn their subsistence.

They will read books upon law, medicine, or politics—they will bear criticism and reproof; but when you talk to a man about his trade, all the egotism of his nature rises up and resolves itself into one mighty I, and he will then turn aside contemptuously, lest the countenance of a suggestion should be taken as evidence that he was deficient. But while we believe that it is natural for men to guard their weakest points the most jealously, we will relieve the minds of such as may scruple against reading a useful and interesting magazine on account of appearances, by stating at the outset that we do not conceive it to be necessary for a coach-maker to take this work because of any lack which he may have in the practical duties of his calling; neither do we propose to teach the apprentice how to shave up his "stuff," to weld his iron, or to seam his lace, for those belong to the "arts and mysteries" which the "boss" binds himself to indoctrinate him into at the beginning. But should we be so fortunate, with all the aids that we can secure from your ranks, as to give a tolerably accurate account of the progress of invention, and the *generally sanctioned* styles of the day, together with an occasional tasteful pattern, or style of finish, we shall consider that we have rendered our efforts useful, rather than *obnoxious* to the craft, and shall solicit their co-operation as a matter of interest to themselves.

But when this comes into your hands, please (for your own sakes) to reflect upon the amount of interest which you begin to feel in the success of the project, and the amount of *pleasure* as well as benefit which you will be able to experience from its monthly visits; and then consider that our circulation must be altogether confined within the circle of the craft, and at best but a limited one, and you will perceive at a glance that nothing short of an *individual*—not a company—patronage will place it upon a respectable and paying basis, and you will readily discover that upon yourself, in a great measure, rests the responsibility of its support; for, should you consider yourself too poor to take it, others will have the same plea (or at least use it), and the

consequence will be that it will fail to pay its publisher, and then you will have no magazine to borrow. If this consideration does not move you to support it, we have no further claims upon your sympathy; for, should we fail to interest you, you can have no motive to act from, and your comrades would have no fears of your soiling their books. We would briefly hint that *Editors seldom get rich.*

The conducting of a purely Literary Magazine is, of itself, a very difficult task, and yet it is nothing in comparison with the labor required in editing a Magazine in which both a literary and a mechanical character are to be in combination. We therefore hope to have the kind forbearance and sympathy of our patrons, to brighten the clouds that must occasionally overshadow our pathway; and then, how can an editor expect to be able to please everybody, when he can so very seldom succeed in pleasing hinself? Let us bear and forbear.

If our friends will only heed the above suggestions, we will do our best to make the Magazine all that the reader could desire it to be (consistent with its aims), both as a useful and an attractive work.

Again, let us endeavor to be prompt with each other. When the first of the month rolls around, you want your magazine, and, when a series of articles are commenced, you expect them to be completed; you also want your letters answered promptly when you address us on business; consider this, then, as a business letter, as well as an editorial address, for we intend it as such, and answer *immediately.*

If you chance to be out of money, don't wait to get it, but sit right down, and, using your pencil if your pen is poor, trace on a leaf of your memoranda, on waste paper, or anything which will show your autograph, the following simple sentence: "I am expecting to patronize your Magazine," and sign your name and address, then enclose it to the proprietor. This will not only prove a guide as to the number which must be struck at the second issue, but it also insures the writer a complete volume. To sum up the whole, if you like the Magazine, *we trust you will take it and pay for it.* If you intend to take it, we hope you will *say so.* If you have anything to say against the way in which it is conducted, *let us hear it first.*

Times are hard, we freely admit, but we presume you still continue to use tea and coffee, tobacco, and perhaps your "lager." You will say that those are the common comforts of life, or at least the spices that savor them. We admit it; but is not reading also a source of enjoyment—a goblet of thought, flashing at its foaming brim with the more than equally necessary cordial of the mind? Will it not awaken a new source of pleasure, for which kings have sought in vain, and thus light your sullen pathway on to a brighter and a better day? The way to drive away the "blues" is to work manfully during the hours of labor, and drown the cares of business, at intervals, by the enjoyment of mental or other wholesome repasts. It is a significant fact that literary papers and magazines were in larger demand during the crisis than at any previous time.

WHAT THE FRENCH THINK OF US.

OUR readers will find in this number of our magazine an article translated from the *Mercure Universel*, a monthly journal published in Paris, in which the editor has undertaken to enlighten the Europeans upon the state of carriage-making in this country. It will be seen, very readily, that the writer has obtained his information from sources not easily reached by ordinary staticians; and we have a slight suspicion that, in addition to the facts given, he has drawn somewhat upon his imagination. The article itself furnishes abundant evidence that the author was not an "eye-witness" to all the good things he so graphically describes; and, when he speaks of New Orleans as being situated on the "oriental banks of the Mississippi," we are inclined to believe that his geographical knowledge of that locality must have been derived either from the map of a real-estate auctioneer, or the advertisement of a country boarding-house keeper.

It will doubtless be news to many of our readers, that the English manufacturers, who attempted to monopolize the carriage-trade of that country, and failed, finally transferred their skill, and whatever of capital they saved from the wreck, to the "oriental banks," and that they are now occupying shops in New Orleans, in which may be seen "shelves with hooks, on which carriages are hung, and others suspended from the ceilings." If any of our readers have seen shops of this kind in New Orleans, they will place us under very great obligations by employing the best photographic artist in the city to take an interior view for illustrating our next number, and draw upon us, at sight, for costs and charges.

The writer also naively informs us that the New Orleans carriage-makers "possess iron, steel and a good quality of wood," and we think one word in the original would almost justify us in adding "putty" to the other materials; but, as we are not quite sure that our translation of the word is correct, we will omit it from the list: and from the fact that they possess these important requisites, the writer goes on to argue that the "New Orleans Carriage-makers would have made beautiful work, if these adventurous *negotiants* had not gone and carried mercantile men among them to take the place of the comfortable, strong and solid." We like his idea of what a carriage-maker should be, and we have no doubt, notwithstanding his assertion that New Orleans is "unhealthy," many of our fellow craftsmen there will be fonnd to be both "solid and comfortable."

It will be observed, also, that this writer shows, conclusively, that our New Orleans friends are underselling Eastern manufacturers, and it behooves us in this quarter to

look into the matter. We must not be beaten by them, even if they do possess "iron, steel and a good quality of wood." He says that "you can easily obtain a carriage (?) harness and a horse, all new (except the horse), for 250 frs.." which is about equal to $50, but he does not give a very good description of the horse, and, from the fact that he is not "*new*," we doubt if he can be either speedy or handsome. The quality of the carriage, also, is made rather doubtful by his assertion, that they are in the habit of using "chestnut spokes" in that quarter.

All this, we doubt not, will be very amusing to our New Orleans friends, and we hope they will be duly thankful for this late news from France; and we will take this occasion to say to our Paris contemporary that, notwithstanding these terrible "*negotiants*," the carriage-trade in the Crescent City is flourishing bravely, and that she has one establishment which, we do not hesitate to say, sells more vehicles yearly than any other in the world—we allude, of course, to the well-known house of Messrs. Denman & Co., whose establishment has been in operation nearly forty years, and celebrated throughout the South for the excellence of its work.

There are other first-class houses in New Orleans, which would be an honor to any city; and we venture to say that, if our French friend should step into the Repositories of Messrs. Lum & Co., and Messrs. Mathews & Co., he would find vehicles that would compare favorably with the best manufactured in Paris; but we doubt if he could find in either of these establishments "carriages hung upon hooks, or suspended from the ceilings."

OUR PLATES WITH THIS NUMBER.

OUR friends will notice that we have given them four plates in this number, which is one more than we had promised in our prospectus. The craft are also reminded that our drafts are better got up than they are accustomed to see in publications of this kind, and are correct and practical working drafts, drawn from carriages, *not* got up on paper by persons unacquainted with correct measurements, but of real manufacture, and consequently have a value attached to them, not always found; and we trust that they will, consequently, prove satisfactory to the coach-making public. It is not our intention to invariably give portraits on plate paper—this, however, will depend upon the encouragement we may receive—but to have them inserted in the reading columns, as is the custom in other works, and to give them occasionally during the year.

The Buggy on plate I. is drawn from the original vehicle, and is as correct *a likeness* as can be made. The *Landaulet* is from a drawing by Mr. Isaac W. Britton, of this city, whose pencil and talent, we are happy to announce, have been engaged for the special benefit of our readers in future numbers; and, although we do not wish to flatter him, we must say, we think, when his forthcoming drafts are seen, you will admit that he stands unrivaled in this department of his profession. When we add that his position is favorable to his being able to give the latest fashions, we are convinced we have said enough on the subject. The Char-à-Banc, as elsewhere announced, is by Mr. Frederick Wood, of Bridgeport, Conn., and furnished us through the politeness of Messrs. Wood Brothers, the distinguished firm on Broadway, this city.

The portrait of Mr. Brewster is from an ambrotype by Turner, of New Haven, and is pronounced by his family and acquaintances to be a capital *image* of the original. In justice to the feelings of Mr. Brewster, we have to say, that he only consented to sit for his likeness after much importunity, as he has great aversion to notoriety in any form. The engravings, with the exception of the one named above, are principally by Lossing and Barritt, whose popularity in that line is not unknown to fame.

In justice to our patrons we are obliged to say, that we reserve to ourselves the privilege of confining ourselves (except on special occasions) to our original promise of three plates. This, however, will very much depend on the encouragment we may receive, as we have no intention or thought of making enough on this publication, in one year, to enable us to retire to some *villa*, and sleep away the remainder of life in comparative obscurity.

With the July number, we intend to give a splendid modern coach, furnished by our special artist, a fine dog-cart, by Messrs. Brewster & Co., and a draft we have lately received from France, all of which, we trust, will be acceptable to our friends, and satisfy them that we shall be able to redeem our promises of giving them their money's worth.

☞ An editor of a respectable sheet cannot afford to soil its fair columns with a long-winded personal difficulty. If you prove your antagonist to be a great falsifier—what then? It is sowing to the wind and reaping the whirlwind. The patrons, at whose expense you publish it, are too little interested in the result to either countenance the trespass, or pry into the merits of the controversy; and when, at last, their patience has been worn thread-bare, they will decide that both parties have made fools of themselves. A cotemporary remarks that such things look doubly mean when printed with good type, and on good white paper. A certain air of gentility seems to surround such a sheet, which should inspire confidence, and recommend it to favor.

☞ Home-made correspondence is now the order of the day. We have been somewhat amused at the display lately got up at the office of a Western cotemporary, though nearly annihilated by the blaze of invectives and crash of italics, through which the writer's individuality shines most conspicuously.

TABLE OF TRADE.

SHIPMENTS from New York, Spain, Cuba, Mexico, and California have been made; but business is less brisk in those directions, this spring, than usual. The Central American trade is disturbed, and nearly cut off, by hard times and internal feuds.

Business in the Eastern States is reviving as fast as could be expected. A St. Louis correspondent reports trade brisk in that city, and thinks that all hands are busy through the South generally.

In the West, trade seems to be springing up considerably.

We hope to give a more perfect summary in our next.

☞ Club-agents will confer a favor by reporting the state of trade, in their respective localities, monthly. We hope to be able to make this a useful and interesting feature in the new work.

☞ This number is dated June, that we may continue to publish in advance of date. We are convinced that it is better to be a month ahead than a week behind; so our patrons must be up in the morning to receive an early visit. We make no excuses in regard to the appearance of our first number; for, with sensible men, our position is understood and appreciated.

☞ The present number is not a strained effort. We have no patents to peddle—no humbugging interests to fall back upon. If properly sustained, the "Metropolitan Magazine" will be the work of our future lives. Our course will be firm and even. If we make any change, it will be to print a better magazine between canvassing times than when soliciting—otherwise our patrons will justly consider the management a swindling operation.

TASTE.—There are many employments which require the exercise of taste, to prove successful; none more so than the coach-maker's. The great public, of which an individual is but an integral part, will so far study its own interests as to learn, in time, that the most substantial and tasty made work is the cheapest, even should they pay a little more for it at purchasing. We intend to use our best efforts, for the "mechanical interests" of coach-making, by foreign and domestic correspondence with the craft, monthly. But should we only succeed in bringing to the reader's mind a solitary original idea during an entire year, *ought* not that to satisfy him for his three-dollar subscription to our work?

EGYPTIAN "TURN-OUTS."—An American, now traveling in Egypt, writes home from Alexandria, saying, "The stylish turn-outs we saw here would astonish you; such carriages, and always a servant running before to clear the way." It is said that omnibuses are found in Cairo, carrying passengers as in London, Paris, or New York.

Editorial Shavings.

THE CARRIAGE PRESENTED TO THE PRINCESS ROYAL.—Messrs. Hooper & Co., of the Haymarket, Coach-builders to the Royal family, have recently completed a very beautiful carriage, which has been presented to the Bride of Prince Frederick William, by the city of Königsburg, on her arrival at Berlin. The carriage is a C and under-spring landau; the body is painted a dark cobalt blue; the wheels and under carriage are of the same color, picked out with red. On the panels of the doors are two shields, bearing the arms of the Prince and Princess, surmounted by a crown, and encircled by the ribbons of the Hohenzollern Order. The interior of the carriage is lined with figured brocatelle silk, of a silvered drab color; and, at the suggestion of the Prince, the curtains are of a delicate rose-color, which produces a very pleasing effect. The hammer-cloth is a dark blue, with red and white fringe, and bullion tassels and cords. At each side are silver shields, with the arms. The lamps and fittings are also silver. The carriage, which is described as being chastely elegant, was built in the short space of ten days. About ninety men were engaged in its construction. John Bull must have been uncommon smart, we think, to have done all this in nine days, *especially if he did the painting in the same time!*

JOHNNY BULL PRICKING UP HIS EARS.—Our enterprising countrymen, the Messrs. Howes & Cushing, are astonishing the natives across the "big herring pond," by their magnificent display of chariots, wagons, horses, etc., etc. An English print, describing this Yankee enterprise, says, that "the pageant consists of a musical chariot or Apollonicon drawn by forty cream-colored horses, driven in hand by Mr. J. P. Paul." This gentleman, by the way, is very dexterous at handling the "ribbons," forty in hand, and seems, if possible, to have astonished the English jockies even more than our own citizens. The chariot is embellished by a painting of the landing of Columbus in the New World, and a spirited illustration of a buffalo hunt. Among the inmates of this chariot were a troop of Bedouin Arabs, whose feats appear to have wonderfully astonished the Cockneys. A whole tribe of North American Indians, in this cavalcade, have excited the wonder of the rural population by their strange costumes and manners.

THE MALTESE IN LUCK.—The Maltese, at Tunis, in Barbary, have a virtual monopoly of all that pertains to carriages for hire. The supply of calèches is large and the demand brisk, as the charges are moderate.

TAX ON CONVEYANCES IN LONDON.—The mileage duty for the past year on omnibuses, licenses, etc., was £74,270 7s. 10d.; whilst on cabs the total duty was £82,110 9s., including the drivers' and conductors' licenses.

CLUB AGENTS.

Coachmakers, who take the lead in making Clubs for our present volume, will receive a handsome chart at the close of the year, containing the fashion plates published in our work up to that date. This will furnish our friends with a fine reference chart for office and shop use.

Hopes and Helps for the Young.

MY BOUND-BOY AND I.

The house that you see underneath the great pine,
With walls that are painted, with doors that are fine,
And the garden, with hedges about it, are mine.

Yet Elijah, my Bound-boy, may dream in its shade,
And breathe the perfumes of my garden and glade;
Or may wander and chat with some bonny fair maid.

Of the town, or the country, he owns not a rood—
No stone by the road-side, no stick in the wood;
Yet ne'er lacks my Bound-boy for clothing or food.

When creditors beg, and stern bankers demand,
He sits by the chimney—his book in his hand—
As merry at heart, as if money was sand.

'Tis good in his blue eye the twinkle to see;
That the shop goes awry, never troubles his glee;
'Tis I that must pay for the damage, not he.

He laughs while I frown, and he sings as I sigh,
And his hours pass more lightly and happily by;
So Elijah, my Bound-boy, *is richer than I.*

A DREADFUL MALADY.

Perhaps, without offense, we may be allowed to say a few words on a disease to which we are all subject. It is a malady common to both sexes and to all ages, but it is easier controlled in children than adults. Not all the physicians in Philadelphia, not the whole body of the College of Surgeons, not all the drugs in Apothecaries' Hall can effect a cure. They cannot minister to a "mind diseased," and therefore throwing "physic to the dogs" would be in no wise contrary to common sense in this particular.

Thedisease to which we refer is occasionally produced by trivial circumstances. It has often been caused by a badly cooked dinner, or a delayed breakfast, by a dishonored bill, or a rise and fall in the money market, a hasty word, an unfulfilled promise, a denied request, a disappointment of pleasure, an idle rumor, and sometimes even a shower of rain has been known to cause the most dreadful results.

The disease is in some cases infectious. It has been known to attack a whole family, and to have been communicated from one to the other like measles or the small-pox. The head of the house has been seized by the epidemic while from home. He has returned with the virus in his system. Symptoms of the malady have rapidly developed themselves in his lady; the children and servants have been seized in precisely the same way, until every one in the household has been more or less affected, and the sign of the plague ought certainly to have been painted on the door of the dwelling, with the appropriate inscription, "Have mercy upon us."

The symptoms of the disease vary in different cases. Sometimes the patient is seized with a paroxysm, during which he (or she) utters very strong language in a highly excited manner, and rapidly passes from room to room, banging the doors and discommoding the furniture. In other cases the patient appears to be struck dumb, and suddenly to have lost all energy. A deep silence is preserved. Questions, though frequently repeated, remain unanswered. The appetite generally fails; nothing is eaten, and an utter prostration of the system is noticeable in every movement.

The symptoms, however, are almost endless in their variety, producing in some a kind of temporary insanity, in which they are ready to commit any act of violence; in others a gnawing sensation of desire to inflict suffering on those about them; in some the attacks are sudden, and are not be accounted for by any known laws: while in others they are invariably traceable to some known origin. In any case the attack is severe while it lasts; and its peculiarities are such that it is extremely painful to wait upon the patient or to remain in his society. Happily, the malady is seldom if ever chronic, and only requires a careful regimen on the part of the sufferer to effect a complete cure.

Bad Temper is the disease to which we thus delicately allude; and so prevalent is it, and so destructive in its results, that we think we are right in introducing it among our "Hopes and Helps for the Young."

It is really astonishing how little our moral reflections dwell upon our tempers. How seldom do its errors impress us with any strong regret. We neither blame ourselves nor think that others should blame us on this account. We value a good reputation, and to secure fame or fortune we think no exertion too great; but as to the regulation of temper we rarely give it a thought. We do not reflect how much happiness or how much misery for those who are nearest and dearest to us lies in the control of our temper. We forget that we are all creatures of sympathy. We forget that the harshness of our words, the coldness of our manner, the bitterness of our looks, may inflict deep wounds, that will lie long ere they heal, and may never lose the scar.

It would be impossible to enumerate and classify all the failings of temper, for they are as versatile as the peculiarities of human character. We may, however, glance at bad temper in few of its more conspicuous forms; but we can only do this in some of its broader distinctions.

THE VIOLENT.

Violence is the coarsest and most brutal form of temper. Selfish passions, unable to bear any constraint, or any contradiction, or any supposed contradiction, blaze into a devouring flame, scathing everything within reach. Violence of temper is the prime element in the tyrannic character. There are as great tyrants—in their limited sphere—ruling over the family circle as ever swayed a sceptre over an empire. A low, barbarous, ruffian nature, obtuse

and unforbearing, can fill to the brim the cup of calamity for those few over whom he exerts authority. The house he calls his castle he can for others make a prison; the liberty of which he boasts he can make to them the direst bondage; the power which should be their guardianship he can make their terror—heaping sorrows without number on his dependent and defenseless victims.

There are wives in America who turn pale at a husband's step, and hurry their trembling children out of the way when "father's coming." Ther are brothers and sisters with one amongst the number with whom they can never be familiar; one who goes into a passion at every trivial circumstance, and, in asserting his or her own independence, renders everybody else wretchedly uncomfortable. This sort of spirit, if given a theological direction, makes the bigot, the fanatic, the persecutor; this makes the martinet of the army, the fire-eater of the mess-table, and would make the most absolute of all absolute tyrants, if clothed with imperial insignia. In its passionate paroxysm it loses everything that calls for respect, and in the thoughtful excites more commiseration than fear or hate; for he who can please nobody is not so much to be pitied as he whom nobody can please, who

"Speaks plain as cannon fire, and snaps and raves,
And gives the bastinado with his tongue."

THE MOROSE.

As temper of this class has its various forms, so it has likewise manifold sources. It may be found in extreme self-consequence, or in extreme self-dissatisfaction. It may be evidenced by haughty contempt or silent and cold indifference. Such a temper constrains the spirit. It leaves the soul few social attractions or generous desires. It throws gloom where it ought to throw light. It withers the smile half formed. It silences the word half spoken. It robs action of loveliness, and takes all grace from speech. It has no soul of frank and generous appreciation. It seems to live only to prove how much pain one human creature may give to others without reaping any gain or pleasure to himself.

The misery that violence inflicts, it inflicts openly—this does it silently: violence often feels its wrong—this never: violence has its moments of deep compunction, but this has no time of tenderness. If a violent temper makes a tyrant, a morose temper makes a cynic—one makes the persecutor and the other the ascetic. If both, therefore, are equal in unkindness, the one is at least more coldly intolerable than the other.

THE REVENGEFUL.

Revenge is very commonly the result of a marriage between pride and vanity. Pride is better than vanity; pride can forget and forgive, but vanity very seldom does either. To the vain or the petty proud, flattery is as the very breath of their nostrils. Rough or disagreeable truth is not to be endured. Sensitive at all points, such persons are hurt when you did not know it and did not intend it. They resent as mortal stabs what was merely meant for a joke. They magnify little slights into great wrongs, and by perpetually gazing at a molehill at last bring themselves to believe it a mountain.

To give tit for tat—*quid pro quo*—is the only thing that can satisfy their morbid vanity. They must revenge every slight—intentional or otherwise, great or small—they catch the transgressor by the throat, and will not let him go till he has paid the uttermost farthing. These anti-social and unmerciful dispositions will make no allowance for the frailty of human nature, or the failings and provocations of their own character; they set themselves up above everything, and, to punish an offense, to revenge an insult, would compass heaven and earth.

THE CAPTIOUS.

The captious and discontented are never to be satisfied. They are prompt to complain; are only at peace when they are in a quarrel, only contented when finding fault. Their heads are as full of quarrels as an egg is full of meat. They are the most obdurate opponents, because the most prejudiced; they are the least susceptible to conviction, and the last to appreciate kindness.

"All seems infected that the infected spy;
And all seems yellow to the jaundiced eye."

In all waters there are some fish that love to swim against the stream. In every community persons are to be found who delight to be in opposition to everybody else. They are angry without a cause. They glory in their obstinacy. But as stiff necks are always diseased, and hollow trees the most unbending, so their inflexibility is a proof of their unsoundness, rather than their strength.

The captious and the discontented would travel from Dan to Beersheba, and at every step of the way cry, "It is all barren." No society can please them; no character suit them; no exertion earn approval, and no condition satisfy their wants.

EXCUSES OFFERED.

In considering a few of the excuses offered when faults of temper are admitted, we notice—

Natural constitution.—People say they are bad-tempered as they would say they are of a nervous or bilious temperament. they are betrayed, when they know it not, into wrong speaking or wrong actions. It is their natural constitution, and cannot be cured.

Others plead *ill health*, or the *misfortunes of life*. These, they declare, have embittered their constitution, and made them different from what they once were. Fortune and the world have been rough and boisterous in their course. Want of health has thrown gloom over their spirits, and they consequently suffer from a sonred disposition.

Others plead *errors in training*. They were not taught better; were never furnished with right principles; were allowed to have their own way; were spoiled by evil example.

Others urge *irresistible provocation*. These say, Not to have exhibited passion would have been more than human; that their ebullition of feeling was just and necessary; that they acted precisely as they meant to act, and that they are the aggrieved parties.

None of these excuses hold good. That physical constitution is the root of many of our faults is not to be denied; but it is a mistake to suppose that these faults are incurable. Bodily illness or misfortune *may* embitter the spirit; but it is neither just nor necessary that they *should* do so. It is not because we are unhappy that others should be made the same. Evils of training, also, may be overcome and eradicated; and when we excuse onrselves on the score that our quarrel was justified, and our passion nothing more than necessary, we are our own judges, and are therefore not likely to be unbiased.

Temper can be controlled. The man who says he cannot help being angry, or sullen, or peevish, deceives himself. We constantly avoid being so when interest or decorum requires it. Those whims which strangers would not bear, we cast upon our friends. That temper can be corrected is proved by thousands of instances. It is a glorious achievement, and within the reach of all. Better is he that ruleth his spirit than he who taketh a city.

Kindness is the greatest strength; exerts the strongest influence; does the most good, and receives the brightest reward. A kind and accommodating spirit is the genuine trait of manly character. A Spanish proverb counsels us to grow angry slowly, but wisdom of a higher source forbids us to be angry at all.

Although, as we have said, the disease of a bad temper is not chronic, although it may be cured, it is much easier to arrest its progress in youth than in maturity. Therefore we affectionately call our young readers' attention to themselves. "Know thyself." See to it that habits of temper —violent, morose, discontented, capricious, revengeful—are weeded out of that bit of garden ground, the heart, that the flowers and fruits of peace and purity may have space to grow and to flourish.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME AND ABROAD.

AMERICAN PATENTED INVENTIONS.

March 2. METALLIC CARRIAGE-WHEELS.—Waldron Beach, of Baltimore, Md.: I do not claim to be the first inventor of any one of these features, nor ask a patent therefor.

But I claim the combination and arrangement of the several parts as described, whereby I have made a strong, light, durable, and cheap metallic wheel, which consists of but three essential parts, while I have preserved all the important qualities of a good carriage-wheel in the highest degree.

March 9. MACHINE FOR FITTING WAGON-TIRES.—E. L. Dorsey, of Johnson county, Ind.: I do not claim the wheel B, or the measuring of the tire by means of this wheel.

But I claim the arrangement described of the wheels EE and DD, with the wheel B, hand F, and spring-slide M, substantially in the manner and for the purpose fully set forth.

LUBRICATING THE AXLE-BOXES OF CARRIAGE-WHEELS.—Wm. Diller, of Lancaster, Pa.: I claim the oblique or inclined grooves or oil-chambers B, formed within the axle-box A, substantially as and for the purpose set forth.

FIFTH WHEEL FOR VEHICLES.—H. T. Goodale, of Clinton, Mass.: I claim the arrangement of the reach H, with the groove f, to receive a screw e, in combination with the conical shell or cap E, and projection c, connected by bolt D, substantially as and for the purpose set forth.

March 28. AXLE-BOXES.—William B. Fahnestock, of Lancaster, Pa.: I claim the combination of the axle and boxes, arranged and constructed as described, for the purpose of allowing the axle to turn and accommodate the wheel to the direction of the rail.

HUBS OF CARRIAGE-WHEELS.—James M. Whiting, of New Bedford, Mass. (assigner to himself, George F. Wilson, and Alfred Anthony, of Providence, R. I.): I claim the making of the hub and elastic compound cylindrico lever, each end of which rests for a fulcrum on vulcanized india rubber or gutta percha, or other elastic substance, in combination with the coupling-nut, by which the pressure thereon may be regulated.

I also claim the grooves in the body of the hub, or their equivalent, and the projections on the outside of the box, or their equivalent, in combination with the said elastic substance.

WEELWHRIGHTS' MACHINE.—Samuel Holl, of Reading, Pa.: I claim, first, The advantage of cutting the whole length of the tenons from the circumference of the spokes toward the cutter, thereby economizing time and labor to what all other tenoning machines require, as they commence cutting at the end of the spokes against the grain of the wood, consequently their cutters or bits cannot compete with mine for economy and durability.

Second, The advantage of my machine answering the double purpose of tenoning and hub-boring on the same frame or table-work without removing the wheel. I am aware that gearing of different kinds has been heretofore used, but I am not aware that this device or motion of gearing has been heretofore used for the purpose specified, I therefore do not broadly claim the gearing separately.

But I claim the sliding feed rest, c, or anything essentially the same, in combination with the devices of the open-ended shaft, R, level gearing, V, and 6, check screws, and nuts, e and j f, also feed screw, a, shaft, 7, spur gear, 8 and 9, and guide, b, when arranged as described, and used for the purpose set forth.

I also claim the combination and arrangement of the device for cutting tenons and boring hubs without removing the wheel from the machine, substantially as and for the purpose set forth.

TIGHTENING THE SPOKES AND FELLIES OF CARRIAGE WHEELS. —B. A. Rogers, of Shubuta, Miss.: I do not claim having the the spokes communicate with the eye of the hub and expanded by a cone box.

But I claim the combination, in a wheel, of the annular chamber, E, spoke sockets, G, communcating with said chamber, expanding packing ring, H, taper axle box, I, and extended spoke, B B, substantially as and for the purposes set forth.

ADDITIONAL IMPROVEMENTS.

HANGING CARRIAGE-BOXES.—J. M. Jones, of Palmyra, N. Y., Patented July 22, 1851: I claim the combination and arrangement of the disk, or fifth wheel D, attached to the front axle, the embracing circularly flanged annular disk, with its laterally projecting arms or trunnions to which are attached the bars or spring levers K, so as to preserve the horizontal position of the fifth wheel while allowing the necessary play of the said bars, in the manner described.

LATE EUROPEAN PATENTED INVENTIONS.

William Richardson, 5 Ranelagh Grove, Pimlico, and George Richardson, 2 Copenhagen street West, Islington—partly or wholly stopping wheels of carriages of every description when in motion, and such break or breaks to be applied by the motive power.

Henry Brown and William Brown, Newington Butts—an improved whip-socket.

Luigi De Cristoforis, 67 Lower Thames street—an improvement on the system of vehicle wheels, to be called the "De Cristoforis Conical Wheels."

George Shillibeer, 1 Commercial Place, City Road, and George Giles, 10 Gray's Inn Square, London—improvements in omnibuses.

Robert K. Aitchinson, New North street, London—an improved break, applicable to wheeled carriages.

Robert Clegg, Islington, London—improvements in registering or indicating apparatus, applicable to the registration or indication of fares, the distance passed over by vehicles, the revolutions of machines or parts of machines, and other similar purposes.

John Clarke, Shipnal, Salop—improvements in the construction of shafts and poles for cabs, omnibuses, and other vehicles.

John T. Shoner, 4 Church street, Kensington, London—improvements in common road cariages.

OF THE

NEW YORK COACH-MAKER'S MONTHLY MAGAZINE,

Devoted to the Literary, Social and Mechanical Interests of the "Craft."

PUBLISHED BY E. M. STRATTON, 106 ELIZABETH STREET, NEW YORK.

EDITED BY E. M. STRATTON AND M. G. TOUSLEY.

It will contain Three Beautifully Tinted Plate Leaves, 20 Pages choice reading matter, and such other fly leaves, covers and advertisement pages as may be found necessary to complete the balance of the work.

THE NAME,

"New York Coach-Maker's Monthly Magazine,"

Has been selected, that the New might be the more readily distinguished from the Old Work published in the West, as we have no desire to be identified with its interests, or to filch from it the reputation it has acquired.

OUR MONTHLY DESIGNS

Will consist of three Practical Working Drafts, contributed by first class designers and reporters of Style, both in this country and Europe, and drawn correctly to scale. To enlarge the field of design, and to give variety and tone to the work, we shall (as a general thing) give one foreign, one fashionable, and one original or improved design, in each number. To accomplish this, we shall secure Paris and London Correspondence; also the most eminent designers in this country.

AS A LITERARY WORK,

We design to make the "Coach-Maker's Magazine," *par excellence*, an honor to the Craft, and a model to our contemporaries.

THE EDITORS' TABLE

Will be heaped with good things of our own cooking, and just suited to the "Literary, Social and Mechanical" wants of our Patrons. We shall strive to instruct the Young, to entertain the Old, and to add a new charm to the Home Circle. We shall avoid entering personally into the interests of any man's Patent, business, or wares.

OUR PORTRAIT GALLERY.

We shall give an occasional Portrait of men, eminent as Designers, Inventors, Manufacturers, and Dealers, operating in and intimately connected with Coach-making. Many of the first Coach-makers in America have arisen from poverty and obscurity to their present position, with no help but native genius and an indomitable will: such life sketches cannot fail to inspire the hearts of rising generations with a nobler and a higher purpose of life.

THE BUSINESS DEPARTMENT

Will contain matter of a purely business character, such as Patent Illustrations, Notices, Items, &c. In this we shall speak of Inventions as they are represented and of business in the light best calculated to bring our advertisers into notice; so that all remarks of a complimentary character must be regarded in a *purely business light.*

THE TRIMMING ROOM.

This department will be open to Contributions, but will contain prospective cuts only when some new and practical design is discovered, or some new fashion is introduced; but will contain hints and suggestions from the most eminent workmen, East and West, with diagrams, scientific rules, &c., illustrated and explained.

The Stitching Plate will not come in every number. We do not conceive it to be necessary to palm a monthly plate of trash upon the trimming fraternity, just for the name of it. We shall give less figures, and select with great care.

THE PAINT ROOM.

The Painters' department will also be supported by voluntary contributions, and will contain "hints," facts, and valuable receipts, with a series of articles on Chemistry, as connected with colors, the manufacture and use of Varnish, &c.

The Ornaments will be of a rare and tasteful character, and will appear on a fine white plate leaf, in the second or third number of each quarter's issue. Printing them thus will not only secure a finer impression, but will give us the opportunity to choose between engraving and lithographing.

We contemplate securing the services of a competent Colorist, to color the Ornament Plates, for such as feel willing to *double their subscription rate* to have it done. Those who prefer colored plates will suggest it, and, should a sufficient number do so, we will proceed to color and furnish them immediately.

THE SMITH SHOP.

The Iron Workman will find his branch ably represented in this department, and ironing designs, &c, will be given by way of Illustration.

PREMIUMS! PREMIUMS!!

We will present the designer who will contribute to the Magazine, *gratuitously*, the best and most original draft (drawn correctly to the scale, and properly explained), during the year 1858, the following premiums:

1st.—A Turkey-bound Volume of this Work, finished in gold, and suitably inscribed, containing a finely engraved Portrait, with Biography of the Designer.

2d.—A finely-bound Volume, and a Silver-mounted Case of Drafting Tools.

3d.—A finely-bound Volume, and a copy of Harper's Magazine.

For the best Mechanics' Story—in which the trials and triumphs of a life of labor, the evils of the present apprentice system, the necessity of union among Coach-makers, and the unsung genius of the workshop, shall be happily and truthfully portrayed—we will give the author a bound volume of the Coach-Maker's Magazine, finished as above described, and containing Portrait and Biography of the Author, with the warm thanks of ourselves and patrons.

For the best Poem, we will give a finely-bound Volume of the Coach-Maker's Magazine.

For the best Collection of Ornaments, six in number, we will give a bound Volume of our Work, and a copy of the best work on painting that we can procure, either in New York or London.

For the best Trimming Design, we will give a premium of a finely-bound Volume of our Work and a Ticket in the Distribution of the "Cosmopolitan Art Association."

For the best Set of Designs for a Stitching Plate, we will give a finely-bound Volume of the Coach Maker's Magazine.

For the largest amount of useful matter contributed to the Ironing Department and Draft Plate, we will present a finely-bound Volume of our Work, a copy of any of the $3 Monthlies, and a Ticket in the "Cosmopolitan Art Association."

Conditions.—Paid Contributors will remain nameless. Those who send drafts will mark their price on the card, and *if used* we will *send the money promptly*; if not, *return the draft.*

None but Voluntary Contributors can compete for the Premiums. Paid Contributors have no further claims on us than the price set by them.

We make no promises that will not be fulfilled to the satisfaction of all.

Permanency.—We shall pursue an even course, allowing no change in form, scale, plate leaves, department, volume, paging, or anything that will mar the shape of the Book for binding purposes. We shall commence no series that will not be completed, nor attempt to do anything that we cannot carry out.

We Believe that a Coach-Maker's Magazine, properly conducted, will meet the cordial approval and support of the Craft. We believe that New York, situated as it is in the heart of the New World, and at the point of communication with the Old, is the proper place for its publication. We believe that there never was a time when this was more loudly called for than at present, and that with *industry, economy* and *perseverance* on our part, and a *cordial* and *united support* on the part of our patrons, *we shall succeed*, and give full satisfaction.

The French Rule, the Bastard Rule, and Scale Drafting, with all matters of a like nature, will be given just as fast as we can find mechanics and writers who are *fully competent to do them justice.* But we will not humbug our patrons with false promises, broken series, or impracticable lessons.

We intend to deal fairly, represent correctly, and humbug no patron out of either his wits or his money.

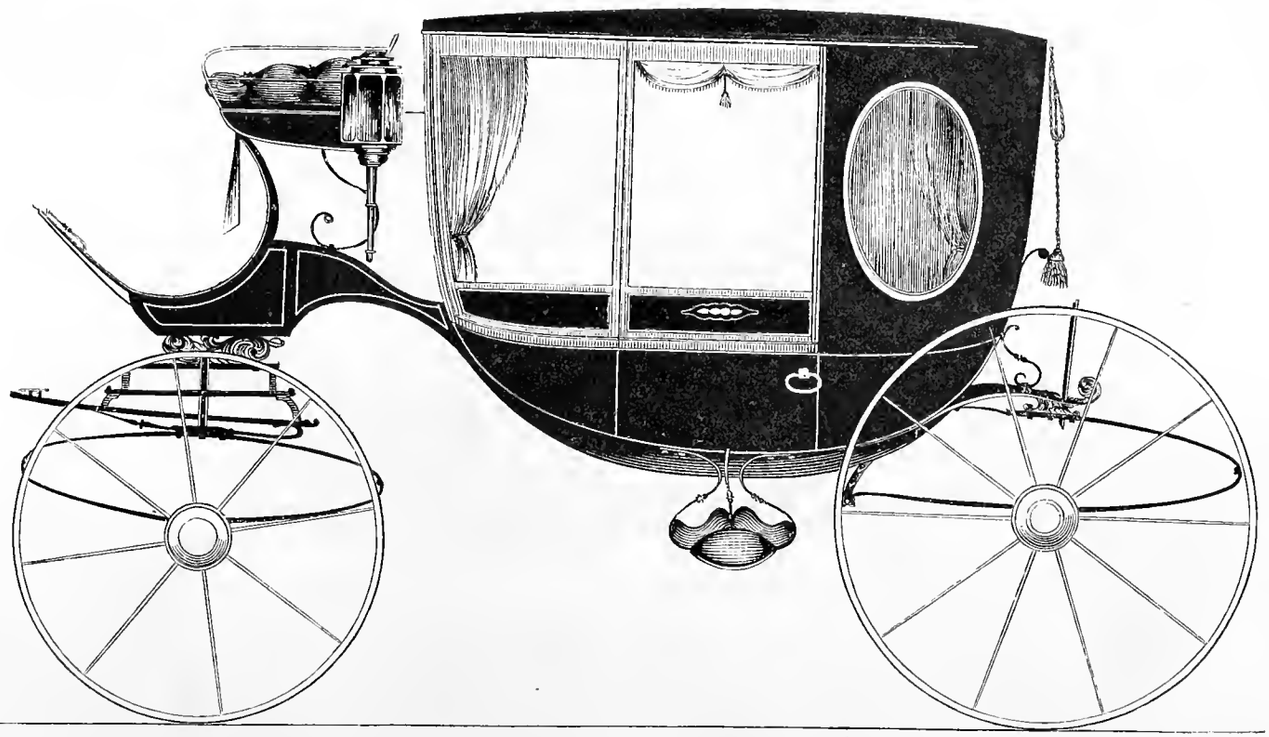
(*For Subscription Rates see Cover.*

A WORD FROM OUR FRIENDS.

THIS IS TO CERTIFY, that we have been acquainted with E. M. STRATTON, proprietor of the "New York Coach-Maker's Magazine," for several years, and we believe him to be, not only a correct business man, but also perfectly responsible as a Publisher. We intend to give his new enterprise our hearty approval and cordial support.

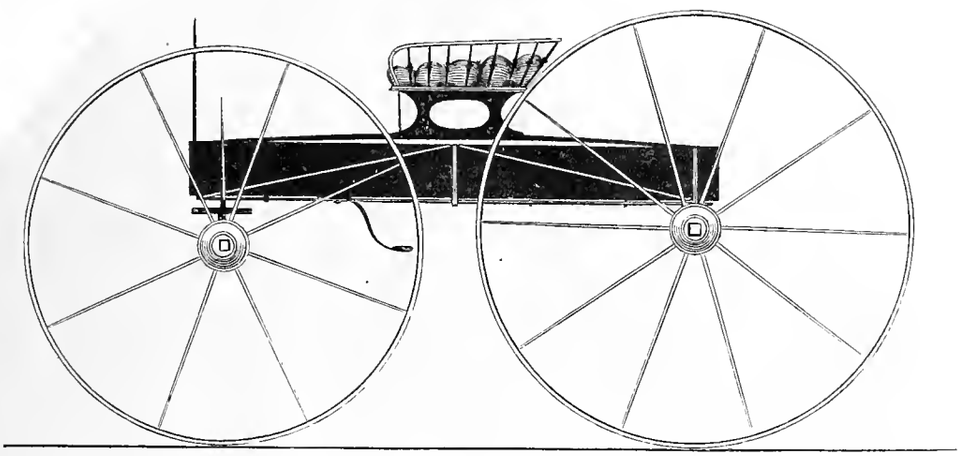
WOOD BROTHERS,
J. R. LAWRENCE & CO.,
BREWSTER & CO.,
MINER & STEVENS,
JOHN C. HAM,
DUSENBURY & VANDUZER,
} *Coach-makers of N. Y. City.*

SMITH & VAN HORN,
JOHN P. JUBE,
BOUTON & SMITH,
} *Carriage Hardware Dealers, N. Y. City.*



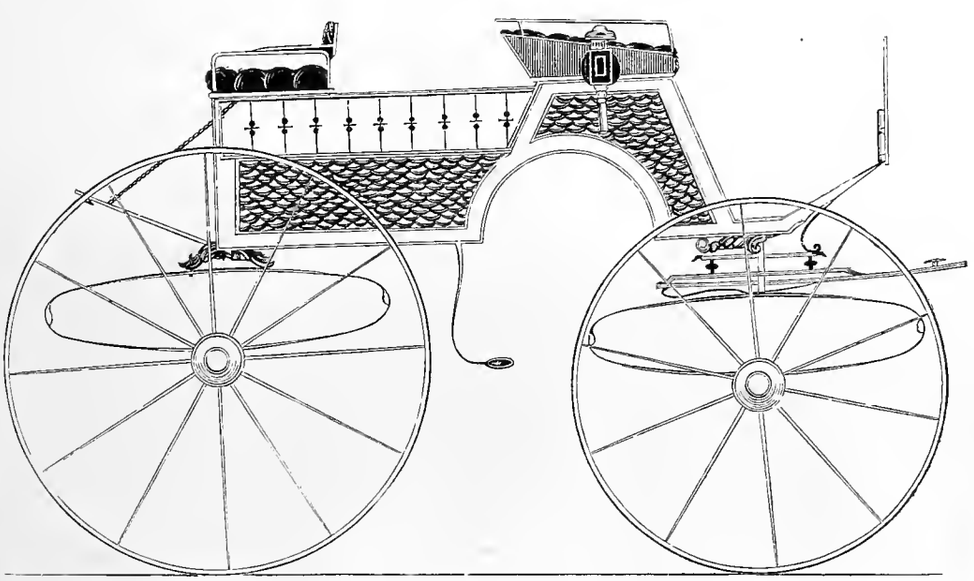
CALECHE COACH.—$\frac{1}{2}$ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 28.



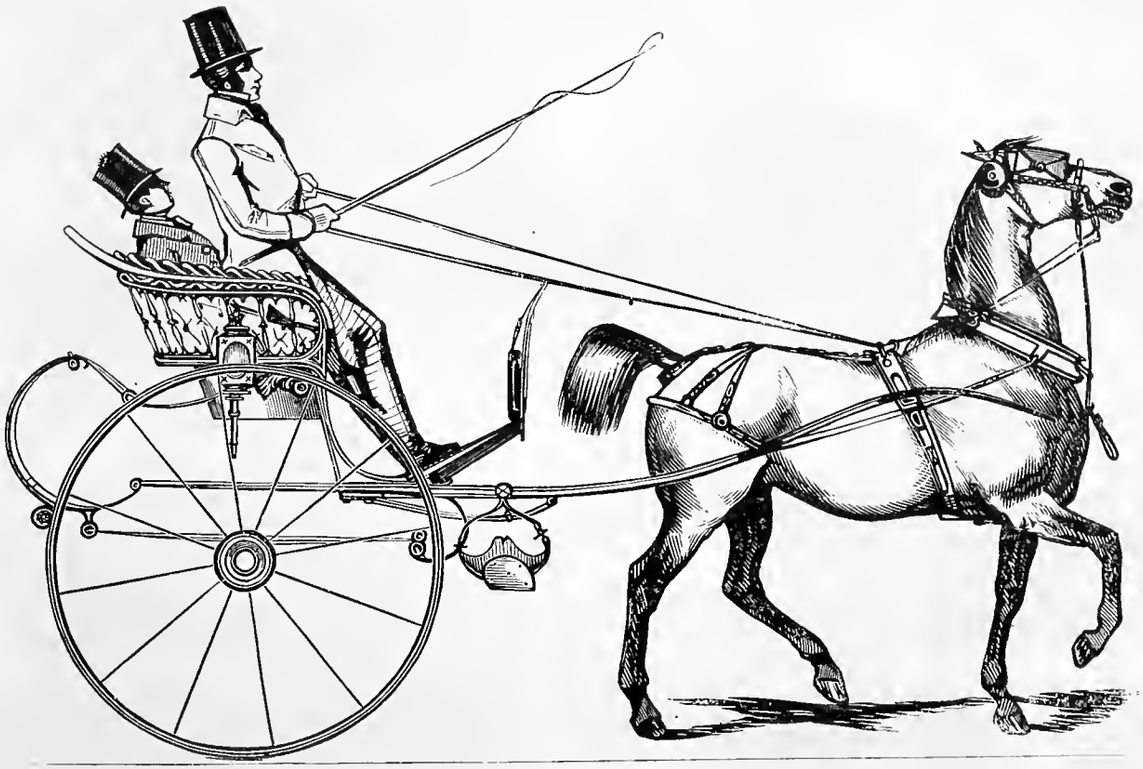
NEW ROCHELLE, OR JAGGER WAGON.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 28.



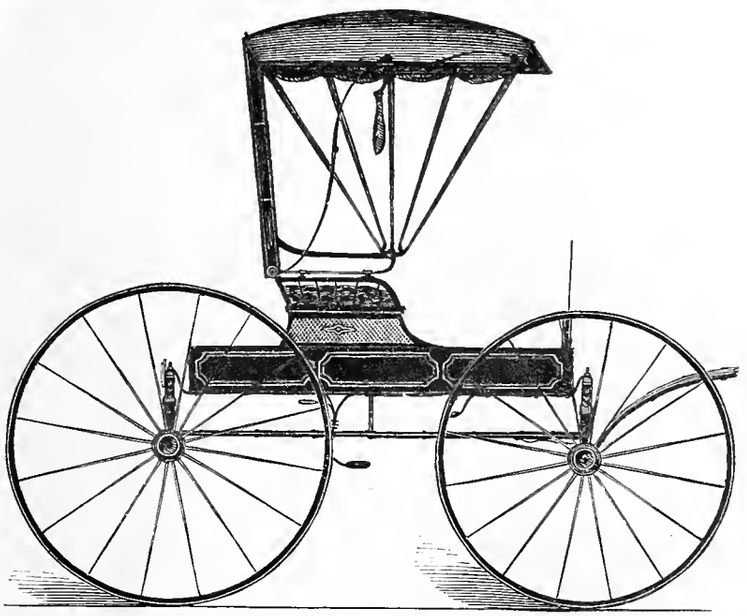
DOG CART.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.
Explained on page 28.



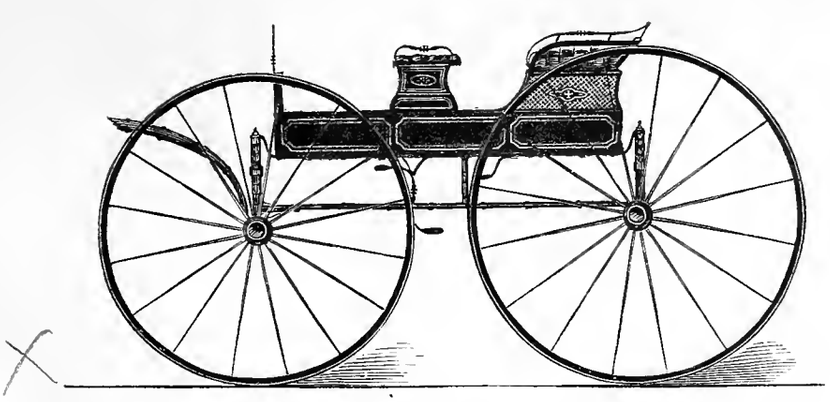
BUGGY, (*French, Boguet*).—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—*Explained on page 29.*



G. & D. COOK'S "JUMP-SEAT" BUGGY.—$\frac{3}{8}$ IN. SCALE.

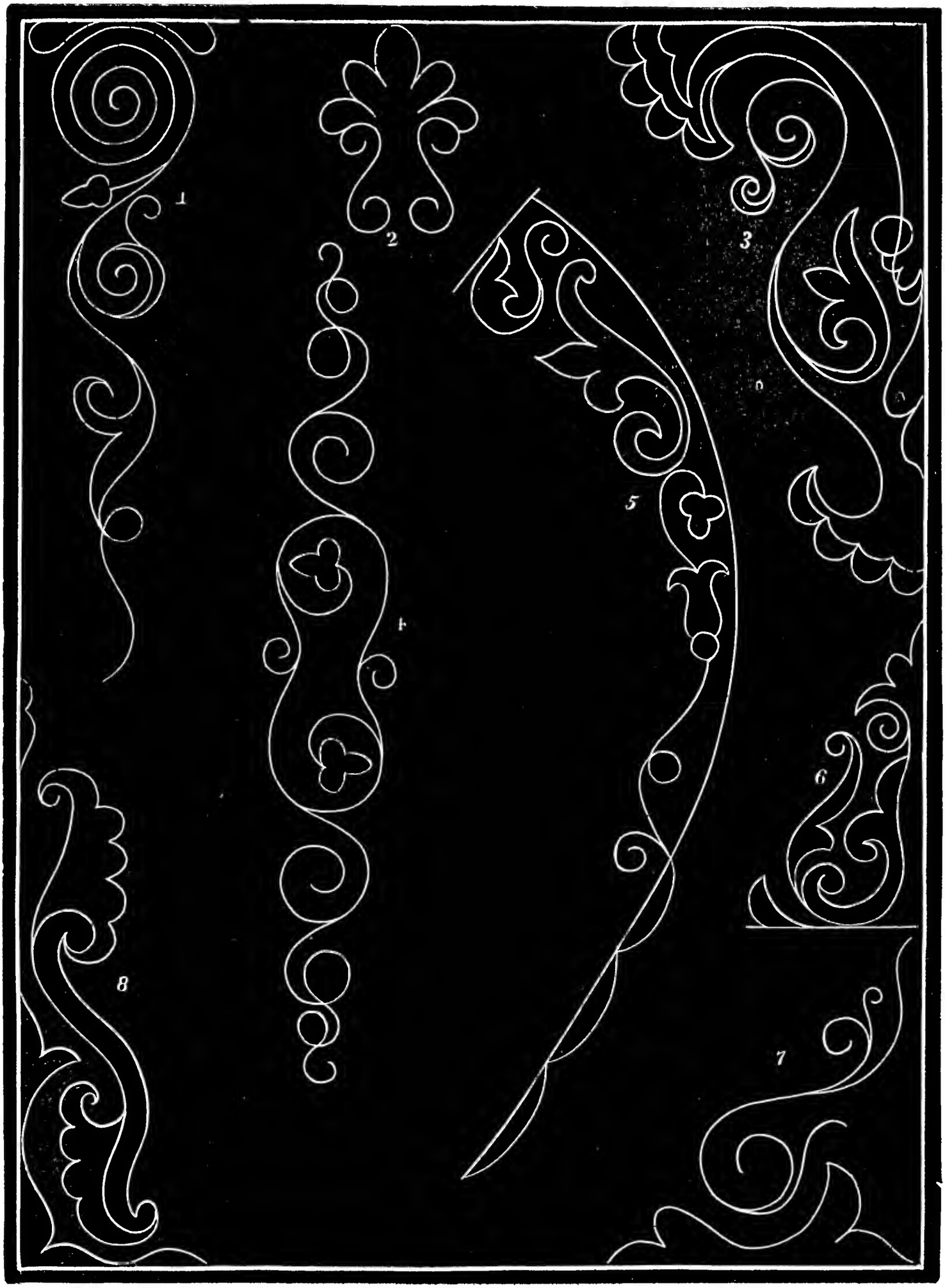
(AS A ONE SEAT VEHICLE.) *Explained on page 40.*

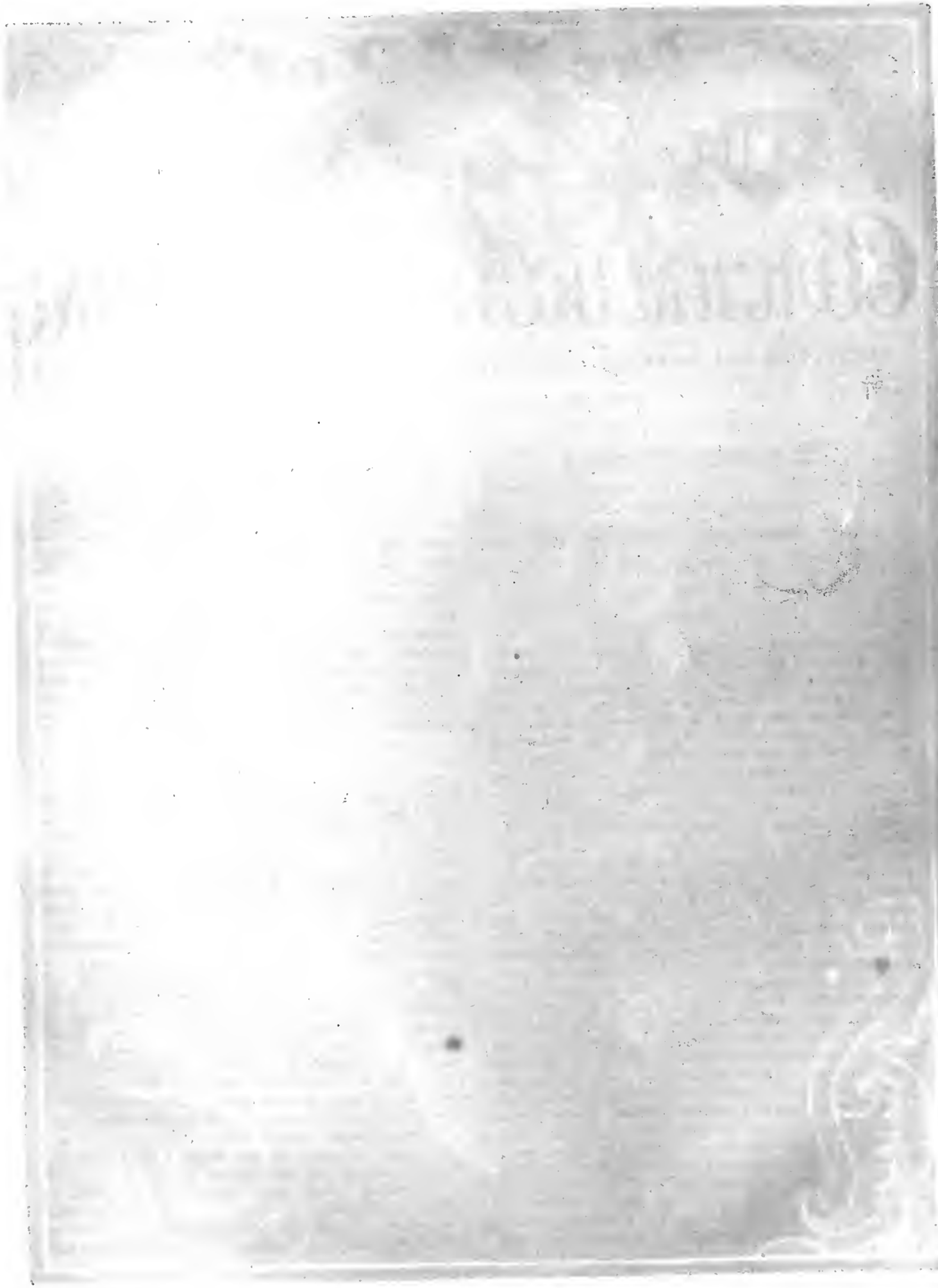


G. & D. COOK'S "JUMP-SEAT" BUGGY.—$\frac{3}{8}$ IN. SCALE.

(AS A TWO SEAT VEHICLE.) *Explained on page 40.*

STITCHING PLATE A FOR JULY.





DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, JULY, 1858. No. 2.

Miscellaneous Literature.

For the New York Coach-maker's Magazine.

THE THREE-FOLD NATURE OF MAN.

BY CHARLES C. KEYS.

No. II.

The observations contained in our first article on this subject indicate how desirable, and, for many purposes, how necessary and indispensable is a knowledge of whatever pertains to the three great departments of our compound nature—the physical, the intellectual, and the moral. To acquire a knowledge of our physical nature, the study of anatomy and physiology was recommended. It is not expected that every man will attain to a critical accuracy in his knowledge of these important branches, or that he will be as well versed in them as those whose professional character and engagements require that they should be made a constant subject of profound thought and laborious investigation. Nor do we suggest that every man, whatever his calling or circumstances may be, should presume that he is competent to act the part of a physician to himself or family, from the cursory and general knowledge which he may have acquired of the structure and economy of the animal system, or of the functions and offices of its different organs and parts. There is a criminal self-confidence and an offensive empiricism in these things, which are justly decried by the better informed, and which it should be our study to avoid. But, on the other hand, a total ignorance of our constitution, in the respects named, is equally reprehensible, if not criminal. It is not excusable in a man making any pretensions to general intelligence, or aiming to maintain his self-respect, that he should be ignorant of that system which is the source and means of all his sensations, whether pleasurable or painful, the economies of which are so admirable and important, and which constitute a masterpiece of divine wisdom, unsurpassed by all the other material works of God. Surely he should know something of himself, and not be altogether a novice in this department. He should have some knowledge of the machinery upon the movements of which his very existence depends, and should make use of that knowledge, as far as he may, in preserving its integrity unimpaired, in the greatest possible degree, and for the longest period of time. He should, also, become familiarly acquainted with the fundamental laws of life and health, that he may be able, by proper care, to preserve the one, and to prolong the other. The ignorance of these laws is, in too many instances, a fatality which might be avoided, and the prolific source of disease and misery which might be forestalled by a little careful attention to this subject. But a limited observation is needed to show that the most blind and culpable carelessness, with regard to food, medicine and general regimen, and particularly in the case of children, prevails to a most alarming extent. The frightful mortality among infants and children throughout the country, and especially in our large cities, sweeping away, within the first decennial of their existence, about one-half of all that are born, should arouse us from our listlessness, and stimulate to inquiry and effort for the purpose of stopping this most fearful waste of life among those of tender age. A better education of mothers and fathers, if proceeding no further than the elementary principles of physiology and medicine, would go far to arrest this desolating tide, and turn the streams of refreshing and of life over the fields made barren and under the curse of death. And, of course, such an education would serve an equally beneficent purpose in behalf of every class and age. Our circumstances are continually changing, and a thousand occurrences may supervene to call into requisition what knowledge and skill we may possess. And our acquirements in this department should not be so limited in their range as seriously to embarrass us, at least, in the more common exigencies of life. To a certain prudent extent, in such cases, our knowledge should be in sufficient degree, so that we may not be at a loss what course to pursue, or be afraid to rely upon ourselves when sudden and unexpected emergencies require the exercise of an enlightened judgment and a rational course of action.

No man can engage in this study without becoming deeply interested and realizing the highest gratification. A most ample reward awaits those who are willing to redeem the time which is now wasted in more frivolous occupations and pursuits, and to employ their leisure hours in acquiring solid information in the branch to which

our attention is now turned. The invigoration of the mental powers, the self-culture realized, the independence and vigor of our thoughts, the highly interesting and valuable kind of knowledge acquired, and its availability in cases where its importance to health and even to life is manifest, abundantly compensate us for the self-denial practiced, the time occupied, the labor performed, or the midnight oil consumed.

All these considerations should secure the introduction of this study into all our common schools (as far as it can be made to enter into a primary and elementary education), as well as into our higher institutions of learning. Without instruction in this department, the education of our youth must be considered as incomplete, and ill fitting them to enter upon the duties and responsibilities of life. And it is to be hoped that the attention of those who, as instructors of youth, have the charge of our schools, academies, and colleges, will be turned to this subject in a manner corresponding with its deep interest and importance, and that a reform in this respect will be inaugurated worthy of the age in which we live.

For similar reasons we would recommend this study to that class of young men who, as mechanics and clerks, have had small advantages in early life, and whose education is consequently generally deficient. A young man, who would make his way in the world, cannot better qualify himself for a successful prosecution of the various pursuits of life than by rendering himself intelligent in what pertains to his particular calling or profession; and by acquiring as general and extensive information on this, as on all other subjects, as his circumstances and opportunities will admit of. We think, in view of what has been said, it will be conceded that the peculiar and relative importance of this subject has not been overrated.

Having occupied so much space in the discussion of this part of our subject, we must defer to a future time the continuance of the general theme.

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER II.

Man's necessities the primary cause of his inventive action—He subjugates the lower animals to his personal benefit—Foot travel relieved by Horse-back riding—The "sledge" an ineptive idea in Coach-making; afterwards mounted on wheels—Primitive axles and wheels supposed to have been formed from a solid log—The first iron-worker—Chariots an Egyptian invention—Wagons sent by Joseph out of Egypt to Canaan, return with his father thither—The inventive genius of the Egyptians stimulated by their warlike spirit—Chariots used at funerals; great destruction of them in the Red Sea—Sethosis' expedition and successes against the Assyrians, etc.

Insita nobis omnium artium semina, magisterque ex occulto Deus producit ingenia.—SENECA.

MAN differs from other animals in that, while the lower orders roam about certain limited districts where they become satisfied if they can find the food necessary to sustain animal life, he, with other objects and other aims, is thirsting with a desire for gaining wealth, or an ambition for new discoveries. These inbred principles of his nature, from an early period in his history, have exercised his ingenuity and absorbed his time in contrivances, varied and numberless, for his personal convenience or pleasure. Among these contrivances, for pleasure as well as business, has been a vehicle of some kind, to which, led by superior intelligence, he has harnessed his subordinates, the lower order of animals.

Walking, the primitive mode of land traveling, man soon found too tedious and painful for his ambitious aims, and, consequently, we may very reasonably infer that, at an early day, horses, mules, oxen, camels, asses, dromedaries, etc., were employed by him for purposes of burden and draught—thus using such natural agencies as came to his hands. But very soon his expanding mind was engaged in seeking for other advantages than these afforded. One of the earliest modes of conveyance, doubtless, was riding on horseback, since a very slight amount of mechanical arrangement would suffice for man's present necessities. But, as his mind expanded, and his real or imaginary wants accumulated, he found this horseback transportation of his goods too slow and limited for *his* purposes. The earliest and primitive invention of man would lead him to adopt the sled, or sledge* form, which, with all its disadvantages, is still found in some shape among all nations, either civilized or barbarous, at the present day. This ineptive idea, rude and shapeless though it was, was certainly a small advancement toward carriage-making, yet it was found an inconvenient vehicle on a soil such as, we suppose, was found in the land of our first progenitors, and it was soon perceptible that something more easily to be drawn was needed.

The transition from a sledge, running on the ground, to a wheeled one, could not have been long deferred. The germ of all the arts being placed in man by his all-wise Creator, his necessities now stimulating his inert powers to action, was attended with favorable results. It required but little observation to foresee that, by placing the sledge on wheels, many of the difficulties previously encountered would then be overcome, and an increased burden moved by the same animal, with a diminished degree of friction. This important desideratum was effected by changing the rubbing motion of a sledge into the rolling motion of a cylinder, and, whether accidental or the studied invention of some early mechanic, is to us of very little consequence really, although it might serve to gratify our curious inquiries.

To improve this incipient germ of mechanism, and bring the wheels into such form as would answer the purposes of supporting a load on an axletree, certainly required some degree of ingenuity in the primitive mechanic; and probably they were in the first instance formed from transverse sections of a tree, as seen in a Chile cart at present; perhaps made with the wheels and axletree from one solid log,† and to rotate axle and wheels together, as is common in our day in the Irish jaunting-car. The use of iron gudgeons, or iron axletrees, could not have been common in the earlier stages of civilization, and the separation of the wheels from the axletree was, therefore, of more recent date, although, if we take the fragments of the chariot in Dr. Abbott's Egyptian Museum as authentic—and we see no reason for doubt—we are forced

* "Sledge" is a term still given in England to a low description of vehicle or cart; but the term "sled" is a term peculiar to America. In the rural districts here, the agriculturist employs what is termed a stone-sledge, or sled, drawn along on the ground, chiefly by oxen, for the removal of large stones. In this, as in other instances, *brute man* shifts the labor of lifting on the *brute beast* in drawing, and is a fair illustration of what ignorance has submitted to in every age of the world.

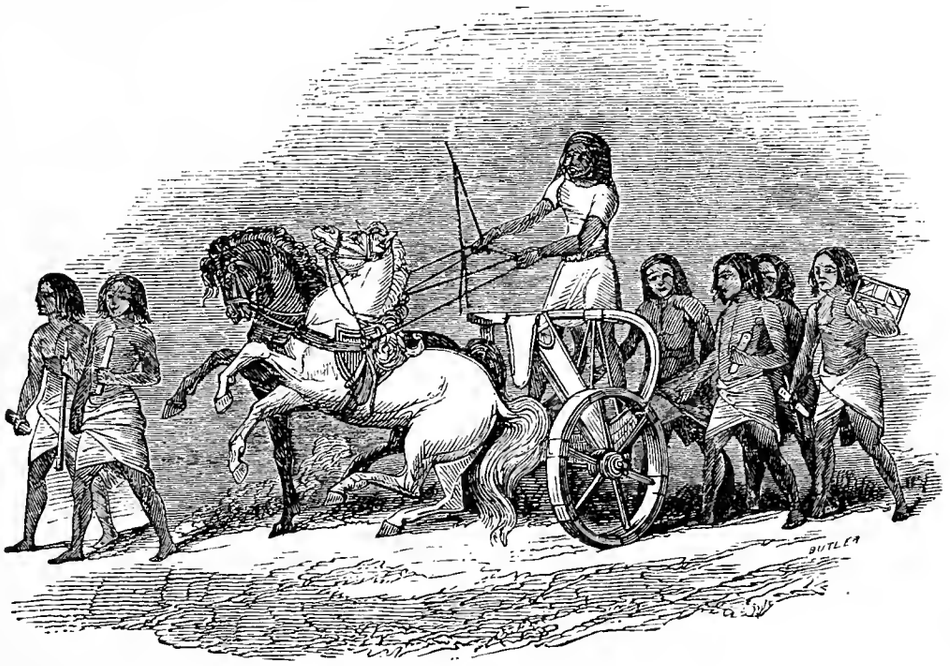
† See illustration on page 7 of this volume.

to conclude that the use of a wheel rotating on an axle is as old as any authentic history which has made mention thereof.

The world was at least five hundred years old when Tubal-cain,* the first blacksmith, is recorded as having flourished, who, as we suppose, being (to use a common expression) self-taught, made it his peculiar mission to instruct others; very probably his chief business was making *hooks, spades, etc.*, since his customers in those primitive ages were mostly agriculturists, and would require such instruments. Thus early was the saying verified: *God created man upright, but he has sought out many inventions.* In other words, God created man upright, with the germ of the arts instilled in his nature, which, while in a state of innocency, he had no necessity to exercise, but after his transgression of the Divine law, finding his natural as well factitious wants greatly multiplied, he was forced to use his talents to obtain means of support.

It would, at this distance of time, be very interesting to the coach-maker could he be favored with the details of the experiments used, the failures made, and the successes gained by the successors of *Mr.* Tubal-cain in this incipient stage of its history in getting up their earlier carriages; but, as that is now quite out of the question, we are compelled to receive the first mention of it in a full-grown shape, as we are the fabled Hero sprung from the head of Jove, and find the chariot of Pharaoh in Egypt, nearly 2000 years after the days of the creation [A. M. 2289] employed in contributing to do honor to his prime minister, Joseph, in a triumphal procession through the streets of the capital of his dominions [Gen. 41: 43). This was 641 years post-diluvian. At the time referred to, vehicles of all descriptions were evidently very expensive, and probably confined to Egypt. Two facts go to confirm this: The first is that, as no wood suitable grew in Egypt, but was brought from distant countries, the wood itself must have been very costly, and that it was scarce is evident when we examine the Egyptian mummy cases, and see of what *small* pieces they are often made up. That wagons were not common in Canaan is confirmed by the circumstance, that when Jacob sent his sons into Egypt, during a famine, to purchase food for his family, on their return (Gen. 42: 26), it is expressly said, that they "*loaded* the asses with corn, and departed to Canaan." Again, when Joseph afterwards was directed by Pharaoh to send for his patriarchal father and his family to Canaan, he told him to "take wagons out of the land of Egypt for your little ones and for your wives, and bring your father, and come" (Gen. 45: 19). Dr. Adam Clarke remarks on this passage that עגלות *agaloth*, from עגל *agal*, which, though not used as a verb in the Hebrew Bible, evidently means to *turn round, roll round, be circular*, etc., and hence is very properly applied to *wheel-carriages*. Very soon after this we learn (Gen. 46: 29), that Joseph possessed a chariot of his own, which he made ready, and went up to visit his father, to Goshen. From these early notices of the use of vehicles, we are led to conclude that art was at an advanced state of perfection in ancient Egypt, and as Dr. Clarke observes, "when we find wagons used to transport *goods* from place to place, we need not wonder that these suggested the idea of having *chariots* for conveying *persons*, and especially those of high rank and authority. These facts (assuming as we have elsewhere done) show that the arts were not in a rude state in Egypt at this early day."

These facts conclusively show that vehicles for business —and probably for pleasure too—were very early in use among the Egyptians, and were probably an Egyptian invention, confined to the wealthy, if not at this early period limited to the king's household. That Jacob had none is implied in the fact of its being necessary to send "wagons out of the land of Egypt" to Canaan to bring him and his family into Pharaoh's dominions. As Jacob appears to have manifested no surprise at the sight of these wagons, which Joseph had sent to convey him into Egypt (Gen. 46: 27), [A. M. 2298, B. C. 1706], we may reasonably infer that he had seen "wagons" previous to this occasion, and became familiar with their uses.



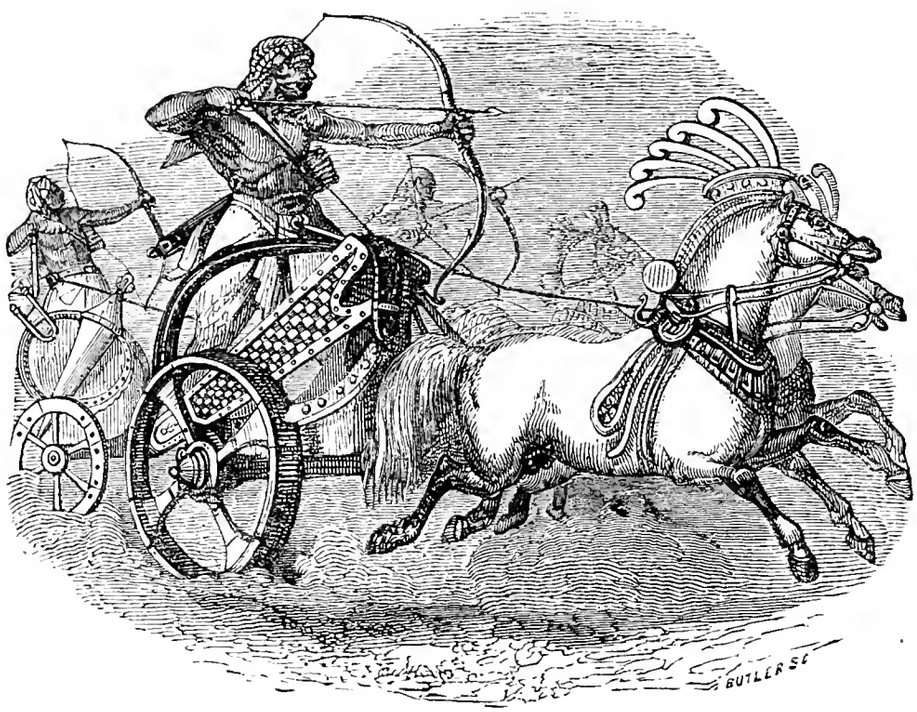
RUNNERS ATTENDING A CHARIOT.

The kingdom of Egypt was founded [A. M. 1816, B. C. 2188] four hundred and seventy-three years already, and become densely populated with a people whom all subsequent historians have agreed were the most ingenious of any nation of that remote age. Of this we have positive evidence from inspired writers (Cant. 1: 8—Isa. 30: 9). Stephen the Martyr, in that noble discourse before his enemies (Acts 7: 22), dictated by the Divine Spirit, expressly says, that Moses, the distinguished Jewish lawgiver, *was learned in all the wisdom of the Egyptians.* This ancient and interesting people possessed an inventive genius which they

* That iron had been invented to man's injury was thus anciently illustrated. Lichas, a Spartan, coming to a smith at Tegea, looked attentively at the iron being forged, and was struck with wonder when he saw what was done. * * * Seeing the smith's two bellows, he discovered in them the two winds, and in the anvil and hammer the stroke answering to stroke, and in the iron that was being forged, the woe that lay on woe; representing in this way, that iron had been invented to the injury of man.—*Herodotus, Clio*, 68.

turned to a useful as well as profitable account. Their "mechanics," says Rollin, "filled Egypt with wonderful inventions, and left it scarcely ignorant of anything which could contribute to accomplish the mind, or procure ease and happiness. The discoverers of any useful invention received, both living and dead, rewards worthy of their profitable labors."

The warlike spirit of the nation made the profession of arms highly reputable, and, as soldiers were well rewarded, the attention of ingenuity was necessarily directed to the production of some contrivance for the better and more expeditious transportation of the army and its material to the field of operation, and this probably *was* the primary cause of the production of chariots. To these chariots the Egyptians were accustomed to harness but two horses, of which they possessed a noble breed, nor could the world produce better horsemen.



ANCIENT EGYPTIAN WAR CHARIOT.

Jacob having sojourned seventeen years in the land of Egypt, died in the sixth year of the reign of Amenophis, at the advanced age of 147 years. According to his expressed will, when alive, all the house of Joseph and his brethren, and all his father's house (Gen. 50 : 9), the servants of Pharaoh, the elders of his house, and all the elders—all the principal men of Egypt, with chariots and horsemen, are represented as going up to Canaan with Jacob's embalmed body, in a grand funeral procession of chariots and horsemen, to do honor to a patriarch who had, previous to his sojourn in the land of strangers, all his life long dwelt in tents.

One hundred and forty years after this event, in the 25th year of Amenophis II., [A. M. 2513—B. C. 1491] when the children of Jacob departed out of Egypt, we learn from the 14th chap. of Exodus, that the king took his chariot and six hundred chosen chariots, and all the chariots of Egypt, and all the horses which Pharaoh had, and went in hasty pursuit of his fugitive slaves; but as these angry pursuers audaciously pursued after them through the Red Sea, the Lord of Hosts "took off their chariot wheels, and made them go heavily." Some have argued from these wheels being taken off, that they were rotating on an axle instead of axle and wheel rotating together; but we judge that at this early period they were made in both ways.

Whether with poetical license or historical truth, we cannot now determine, yet Homer says:

> Thebes, where thro' each her hundred portals wide,
> Two hundred charioteers their coursers guide,

rushed out to battle, and the passage has proved a stumbling-block to commentators from Diodorus Siculus to our times. As to the real strength of Thebes, Diodorus tells us, after the above quotation from Homer, that, "in truth 20,000 chariots did go out from it to the wars."

Sethosis, after this period [A. M. 2513—B. C. 1491] having appointed Armais, his brother, viceroy over Egypt, and investing him with kingly authority, went on an expedition against Cyprus and Phœnicia, and waged war with the Assyrians and Medes, all of which he subdued, either by force of arms or voluntary submission by the mere terror of his name. Encouraged by his successes he advanced still more confidently, and subdued the countries of the East. Ever after, when he went to the temple, or entered his capitol, he harnessed the princes of the countries subdued, who came to pay him tribute, four abreast to draw his car, instead of horses. S.

NOTES OF TRAVEL.

CHAPTER I.

My narrative, like charity, must begin at home. Manhattan Island, now swarming with busy life, is no longer the rural spot visited by the sturdy Hollander of former times. A century has wrought marvelous changes; the farm has been cut into town lots, and minor centers of interest have become consolidated; the farm wagon has made room for the stately coach, and the rustic farm-house for the charming villa, until upon its site the fast metropolis of a precocious nation looms up in its present magnificence and power, resting its colossal forehead upon the bay, and fringing the entire Island with suburban residences. But go where you will, through broad or narrow streets, and the eye will continue to meet with the industrial operations of that noble class who march only in the van of civilization. In glancing at the minutes of a tour editorial through the mazy labyrinths of upwards of fifty coach factories, some of which employ upwards of a hundred hands, when I reflect upon the interest which granted the Magazine an unobstructed pass to the benches of workshops never before disturbed by the intruding vender, when I recall the many intelligent brows that, shaded by care, revealed the sad tale of a winter's sorrow,

and, withal, the many kind wishes and promises of aid lavished upon the first fruits of our darling enterprise, a strong, deep, and earnest desire moves me to an utterance which the burning pen of Heaven's own prophet could only trace. But space and circumstances will not allow me to individualize, so I will smother the tale which is too long to be told, or which, half-told, might do injustice, leaving a warm hand for the future to do that, toward newly-formed friends, which the pen might be too slow and too injudicious to utter. It is sufficient to state that, notwithstanding the hard winter, and the present gloom which a cheerless and drizzly spring has thrown upon the returning energies of trade, our subscription book, which was spaced off liberally for city names, was soon filled past the prescribed limits, and the amount of pages allotted to the entire State was at length filled. The city list of this Magazine is now almost equal to the entire list of our cotemporary. One thing which attracted my attention, while passing through the various manufactories, was the number of open front buggies constructed after the pattern illustrated in our last number, which was being manufactured in all parts of the city, from the borders of Brooklyn to the Harlem precinct. The many failures in country trade have thrown a gloom over city houses, from which they will not speedily recover, so that little indulgence can be expected in the furnishing line. Most of the hardware men are actually too poor to advertise; some, however, will be found snapping their fingers at failure, by reference to our advertising columns—those are the lucky ones, who go about their business and monopolize trade, while others are supinely lamenting their losses. Meeting, the other day, with a veteran member of the press, a strong desire possessed me to hear his views upon the quality of our project. After looking at it for a moment closely, he made a few hieroglyphics upon a piece of paper, and shaking his head replied, "Too fine, too expensive, mechanics will never appreciate it; they are no judges of good literature, as a general thing, and I fear that they will *never support it properly*." Is this true? Will coach-makers spend their money for every other style of literature, and let the only one which upholds the honor of their craft prove a loss and a mortification to its publisher? That this would be true of many trades I have not the slightest doubt, and that there are men of low and sordid minds, who live without one high aspiration, and die as the brute dieth, in *every* walk of life, is a fact no less sad than true; yet our calling stands first in the rank of trades for intelligence and liberality, and home experience points to a brighter future—

When he who deems himself a slave
Shall wake to find that he is free,
When, sunk beneath oblivion's wave,
The demon fell, *Misanthropy*,
Shall rise no more, with hideous face,
To drive him from his rightful place. T.

A YANKEE AMONG THE CELESTIALS.

THE ABSENCE OF CARRIAGES IN CHINA.

OUR Celestial cousins never ride in carriages or on horseback; these are luxuries with which they are altogether unacquainted, and, besides, the streets are so very narrow, that it would be impracticable, were they ever so much inclined to do so. In fact, horse-flesh is scarce in China, and a Celestial would much rather indulge in a pleasant dream—such he imagines it to be—the effect of smoking opium, than ride behind a two-forty minute nag, forcing along the finest "trotter" ever seen on the Bloomingdale Road. The perfection of travel in that country is to move slowly along at a snail's pace, borne upon the shoulders of men, in a palanquin, or sedan-chair, in streets

so very narrow as scarcely to permit the passage of two chairs from opposite directions. In country places the streets are said, on good authority, to be still more contracted, and, consequently, still more impassable.

We attribute the absence of any vehicular contrivance, for the facility of travel and the convenience of business, to the lack of intercourse with the "outside barbarians," as they designate "all the world, and the rest of mankind," and shows *their* civilization to be far behind that of most other nations. As we have elsewhere intimated, the coach is an emblem of civilization, and we want no other nor stronger evidence of our position than to point any person, who may be skeptical on this subject, to the self-conceited nation enclosed within the Tartar-built walls which have for centuries shut out her people from the enlightened and progressive world. China would no more suffer a railway to traverse her narrow and contracted thoroughfares, than permit "outside barbarians" to enter her prohibited provinces. In fact, the smart Yankee, who figures in our illustration at the head of this article, fairly exemplifies what would probably be the result to life and limb in that empire by Jonathan's advent amongst those degenerated specimens of the human species, although governed by "the Brother of the Sun," and shows very conclusively what would be the result of any such enterprise. Only see! John is prostrated before the Yankee has come up with his victim, and the sedan-bearers are seen in the picture to be in the practice of a discretion truly wonderful. In short, he appears to have made such an impression on the rat-eating inhabitants of the "central flowery kingdom," as to send the old sedan-chair and its bearers into obscurity altogether, and to pave the way for the introduction of a better class of vehicles! S.

[Translated from the French expressly for the N. Y. Coach-maker's Mag.]

THE INTRODUCTION OF CARRIAGES INTO FRANCE.

IF some one of our good forefathers—a son of the ancient Lutetia,* that city of mud and rags, of old domes, dilapidated by time, of dark and mean streets, of wooden bridges, which creaked under heavy houses—should reappear in our days, with his remembrance of past ages, I imagine that at the sight of our present Paris, which is lighted every night like a drawing-room, by thirty thousand gas burners, while we await the electric light—that at the sight of those passages adorned with mirrors, as also the oriental palaces, those sidewalks of stone or of bitumen, those splendid hotels, with long galleries on the river shore, sculpture-carved, of those side-streets paved with stone, and with wood, and macadamized, and filled with an ambitious and working population, who wear boots instead of shoes, and umbrella canes instead of a dagger—I imagine, I say, that at the sight of those coquettish, respectable houses, built in a straight line, which turn around to look at the passers-by (!)—the cotemporaries of Flamel, or of Charles the Ninth, or of Rabelais, or of Henry the Fourth, would be marvelously astonished.

But, assuredly, what would stupefy him, are the changes which have taken place in the vehicular fashions; the improvements made in the art of not using one's feet. Where, at this time, are the coaches of which Gregory of Tours speaks; the Carpentum of Eginard, a species of cart drawn by bullocks, and which in derision were called carriages of thirty-six doors? Where are the coaches with small nags? Since the famous uncovered litter, decked with gold and precious stones, in which, in 1389, Isabella of Bavaria made her entry into Paris, the form of the carriole, as they were then designated, has undergone great changes. Those first sedan-chairs were considerably troubled by the caprice of the times.

At first, none but the ladies made use of litters; witness the adventure of Charles VI., who, in a crowd, being mounted behind one of his courtiers, was beaten by some sergeants who did not recognize him. Frequently, even the ladies preferred going thus grappled to some cavalier rather than go in a litter, and it may be conceived, then, in what esteem carriages were held. In 1471, Philip, Duke of Burgundy, attended the tournament on the occasion of the coronation of Louis XI., having his mother, the Duchess of Orleans, mounted behind him, and on the neck of the horse before him a young girl of fifteen, the most beautiful in Paris, whom the Duchess had named her darling. This custom became so general and lasted so long, that in 1650 there were still to be seen, in some of the streets, the last public *mounters* (*montaires*)—a species of stone benches, which served to get on horseback—as it was then in regard to stirrups, so it was in regard to America, they awaited Christopher Columbus.

It was only near the end of the League that carriages began to appear, and it was then necessary, to possess them, to have a patent of nobility (*Bourgeoisie*)—to battle fiercely against the prohibitions of Parliament, who, by a decree of 1563, had interdicted coaches. The victory, however, was gained by the friends of the movement, so that at length these coaches became naturalized, but not without difficulty. The first two persons who dared to sit in them were pursued by hootings and ridicule, and I know not what, caused by the round shape of the equipage, and which the people compared to a privy. One of those daring women, who, by allowing herself to be drawn first, has, perhaps, advanced civilization for fifty years, was the daughter of an apothecary of Rue Saint Antoine (St. Anthony street). Her rival in audacity was a Madame Pilon, one of the heroines of Cyrus, the famous romancer. For the rest, the carriages of which we speak felt cruelly the effects of the infancy and simplicity of the art. Sauval relates, that they were suspended on ropes—the richest upon straps—and that they were entered by means of an iron ladder.

Some years after that, Margaret of Navarre introduced in the Court the covered sedan-chair. It was not long before the use of them spread among the public, and it is easy to imagine what effect they produced on the fashions. In course of time, instead of being carried by hand, two middling-sized wheels were applied, and shafts, to which a man was harnessed. They were immediately called, in burlesque, vinaigrette (*vinaigriers*), owing to its resemblance to the small wheels of the vinegar merchants. It is no doubt owing to this circumstance that they were soon abandoned, so true it is that, with us, a joke suffices to enrich or ruin a man.

* The ancient and Latin name for Paris, which, after having been beautified with noble buildings, and walled in by Julius Cæsar, was by some called Juliopolis.—[ED.

THERE is a young lady up town, who says that, if a cart-wheel has *nine* fellows, it is a pity a woman can't have *one*. We think so, too!

The Home Circle.

For the N. Y. Coach-maker's Magazine.

CHARLES ARCHIBALD HENDERSON;

OR,

THE SUCCESSFUL INVENTOR.

BY MISS MARY E. THROPP, OF VALLEY FORGE, PA.

"Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of Time;

Footprints that perhaps another,
Sailing o'er life's solemn main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again."

LONGFELLOW.

ONE beautiful evening in spring-time, when the long shadows lay slantwise under the western sun, and the birds folded their wings, and settled down on their little feet for the night's rest, while the flowers and blossoms in the front gardens waited silently and hopefully the coming of the refreshing night-dew, a stranger, in felt hat, blue blouse and dark pants, with a stick and bundle over his shoulder, walked quietly up the principal street of A.—the pretty, picturesque village of A., with its two long rows of cottage-like houses, and shadowing lindens stretching over the sunny knoll of its site quite down to the very shore of the dreamy lake beyond. The stranger's shoes are worn, his pants patched, and his dress altogether looks very shabby. Still there is something about him that makes you turn and look at him well, notwithstanding. Is it his fine firm figure? his energetic, independent gait? No: it is the expression playing round his pure mouth, and looking out of the handsome hazel eyes adorning his sun-burnt face. It is in itself winsome. Those great earnest eyes look kindly down on the little children he meets; frankly up, as a brother amongst brothers, at the men; modestly, respectfully, but lingering, at the women, as if they reminded him of mother and sister far away, perhaps in heaven. Yes, look at him. Look to your heart's content. He is a jewel, none the less valuable, if it be in a plain setting. He halts suddenly now in front of the Widow Leaf's white cottage, stands still and listens. What is it? Hark! Music. The window is open, and through the jessamine and roses overhanging come the sweet tones of Nellie Leaf's voice, accompanied by the piano, in perfect melody. Well may he pause and listen. Nellie is singing, as she only can sing, "Sweet Home." Why, what is the matter with him? He seems strangely affected, trembles visibly through every nerve of his strong frame. He removes his hat, draws out his handkerchief, and wipes the perspiration from his broad, beautiful forehead. Nature has been no niggard there. The majesty of intellect is enthroned on that Melancthon-like brow, damp now with the dew of emotion. He steals nearer the window, and, through tears gathering in his deep, tender eyes, looks in. He sees little Nellie within, sitting with her back to him, in her white drapery, at the piano, the last lingering rays of sunset from the west window nestling amid the curls of her chestnut hair, and falling round and about her fair white figure, like a golden halo. She seemed like an angel to him, singing there in her clear, tuneful voice, a white, peaceful angel, straying from that "better land" that now hid away from him forever all that he had ever loved of womankind, all that had ever loved him, his mother and sister. Was it the tears that welled up and dimmed his eyes, or little Nellie's white figure, that prevented his seeing, before, the placid, mild-featured, elderly lady who now approached with her friendly, "Will you not walk in, sir?" "Excuse me," said the stranger, much embarrassed, "but that sweet tune recalled old associations. The young lady's voice sounded so much like my mother's (and his own faltered) that I could not help but listen." The gentle widowed heart vibrated to that touch. She had lost a son as well as husband, a son who must have been nearly the age of him who stood before her. "Come in, do. Come in and rest," and her mild eyes glanced compassionately at the worn shoes and travel-stained garments of the stranger. The young man's quick eye saw that look, gathered its meaning, part of its meaning only, for what did he know of her bereavement, and it nerved him. Poor, penniless almost as he was, he was above pity. Still he appreciated the widow's kindness, and, to prove that he did so, entered the hall-door, and seated himself just within side till the tune was ended. Then, thanking the lady briefly but fervently, he passed out and on to the village inn.

Few hearts are so good and confiding in themselves as to be able to look upon the stranger that comes into their midst without suspicion. The people of A. were not peculiar in this respect. It did not take long to find out that a stranger had come amongst them, calling himself Chas. A. Henderson, a fictitious name, perhaps—(it is a fictitious name, the one I have given him, but he gave his own)—a reserved stranger of whom they could make nothing, though they plied him well with questions from time to time. That he was poor, for he dressed shabbily, and hired a small apartment in the attic of the inn, where he worked continually from daylight till dark, at some mysterious machine, about which he seemed anxious to preserve secrecy, for he invariably covered it over with a cloth when the chambermaid or any one entered. That he was seldom seen during the daytime, except at meals, and not always then, for he rarely supped, taking time for relaxation only in the evenings, after dark, when he either walked out or sat in solitary quietude in the furthermost deeply-shaded corner of the bar-room, his eyes alone active — those splendid hazel eyes, deep as lakes, steady as stars, revealing every varying shade of feeling as the smooth watery mirrors of our mountains reflect every change of earth and sky. Strange to say, the villagers scarcely ever noticed these clear, wonderful eyes, gleaming forever with their steady soul-light, except as one would look at the handsome eyes of a picture, perhaps because they were set deep under heavy overhanging brows, or, perhaps, because the rest of the face, except the magnificent dome above them, was so plain, plain as sun-browned skin and irregular features could make it. They saw, however, that he regularly attended the village church on Sundays, and, when there, it was observed that he sat far back in the most obscure part of the gallery, not so much from modesty, it was supposed, as to avoid observation. So obscure was this corner, that it was some time before they found out that the superb voice that now infused its melody into their hymns could belong to no other than the stranger. This is the substance of all that the busy-bodies of the village could find out about him, after weeks had elapsed,

and "still the wonder grew," till the stranger and the stranger's movements became an object of village interest, a theme for village gossip. Various were the attempts made to discover whence he came, and what he was doing. They watched the post-office, to see the post-mark, but no letters came. They made key-hole observations, till one day an unlucky sneeze close to the lock brought the stranger directly to the door, before the house-maid and stable-boy quite managed to tumble down the stairs together. This stable-boy was subsequently cured of his prying propensities by climbing up the tall old sycamore, whose topmost bough overshadowed the stranger's gable window, whereupon the topmost bough gave way, and precipitated the unlucky John to the yard below, with no other damage done than the complete flattening out of all shape of that very aspiring and curiously contrived nose of his.

Time wore on, and oh, the baffled curiosity of the villagers. It was rumored now very currently that he was a counterfeiter. What else could he be, working up there all day long, with door locked. Very suspicious, very; had a bad look with it. In any case it was deemed most prudent to shun him, if, indeed, he could be shunned, who never sought their society. True, he had gone, in compliance with pressing invitations (given, it must be confessed, in the hope of eliciting something), to one or two of their quilting parties, but the last time he was made to feel, notwithstanding his quiet, unobtrusive demeanor, that one in so shabby a dress was not considered an acquisition, and he never troubled them with his presence again. He only confined himself more closely to his little garret. While they suspected, maligned, the unconscious object of all this misconstruction went steadily on in his own quiet way, little dreaming of the undercurrent about him. Poor, solitary, neglected, he struggled on, in singleness of purpose, in steadfastness of soul. Stout-hearted Henderson, toil on! Fight the life-battle bravely. Grand, earnest-hearted pioneer! Cheerily, cheerily! They who despise thee little dream that the great heart of the village is beating itself away in that solitary attic.

[To be continued in our next number.]

Pen Illustrations of the Drafts.

CALECHE COACH.

Illustrated on Plate IV.

This beautiful draft is from the pencil of our special artist, Mr. Britton, and we judge that its beauty of sweep and correctness in scale are sufficient to enable our friends to build this coach without any extended instructions from us. In this instance we have omitted the mock joints, for the reason that it is becoming the fashion to do so, many manufacturers looking at them in the light of useless appendages. The term Caleche (English, Calash), in this instance, and under these circumstances, may subject us to criticism, as being inappropriate. In vindication we would state, it is termed such by the originator, and although it was finished with a stiff roof, yet it was covered with leather, and the sides were contrived for being taken off at pleasure. Coteline lining makes a beautiful trimming. The body and carriage part may be painted a plum color and striped with black.

The reader may remember that the term coach, generally applied to this kind of vehicle, is radically from the German *kutsche*, changed into the French *coche*, from its having been modified from the sedan-chair, a species of covered bed formerly borne on the shoulders of men. See our translated article in this number, on "*The Introduction of Carriages into France.*"

NEW ROCHELLE, OR JAGGER WAGON.

Illustrated on Plate V.

This is a very plain wagon, which appears to have sprung into existence, in this vicinity, from the exigencies of the times, and may be set down as decidedly popular at this moment. One reason for this popularity, no doubt, is, the cost to a customer can very easily be regulated to correspond with the condition of his pocket—cheap, if desired. Another is, and there is significance in the very idea, that *we*, who have been living altogether too fast for good health, have not only been obliged to resort to cheap wagons, but, in order to cure the dyspepsia in our stomachs, have adopted the best remedy extant—a vehicle without springs—and gone back to the old-fashioned "bolster," riding just as our fathers and mothers did (we mean those of us who are able to purchase even this cheap article), and are jolting our bodies into returning health, to the serious injury of charlatans and quack doctors. As we have no pity for the doctors, we advise every invalid "to go in" for the "Jagger," immediately.

DOG CART.

Illustrated on Plate V.

This description of vehicle is very much used in Canada, as a sporting necessity, and likewise in England, where it is frequently used for what we would call a depot wagon, for carrying boxes and parcels. In sporting expeditions the attendants occupy the back seat, which, being hinged, may be turned bottom upwards, making it a smooth-decked article showing only one seat, and that in the front. The tail-board being let down, with a leather covered chain, offers an opportunity for Nimrod to stow away his dogs on the march, and presents a convenient foot-board for his servants on the back seat. The front seat should be smooth paneled, and if with round corners gives it a very light appearance. The body panels are of French carved mahogany, costing, imported here, $1.50 per foot. An article, to supersede the French manufactured, is being now prepared in New York. Trimmings should be enameled leather.

The general color for this vehicle is black. The carved mahogany is sometimes shaded with yellow, to imitate willow. When the carriage part is black, a fine vermilion stripe gives it relief.

BUGGY (*Fr. Boguet*).

Illustrated on Plate VI.

This class of vehicle, called by the French a buggy, is mounted on two wheels and is not more modern than a pony-chaise, yet has recently come into fashion in Paris. The difference in the arrangement of the springs is the chief object of interest to our readers, and therefore may prove suggestive. The springs, as may be observed in the draft, differ from those in the Tilbury, in that C springs take the places of those called the T., transverse, &c., resting on the hind transverse. This manner of arranging the springs is an English invention, and possesses an ease and comfort preferable to the old T, called the telegraph springs. We have had this vehicle engraved for our work from the *Mercure Universel*, with the horse attached, in order to show how the French are accustomed to harness their horses. It will, at once, readily be observed, that the breeching is much higher on the hip of the animal than with us, and allows the horse to travel more freely and comfortably than on our plan.

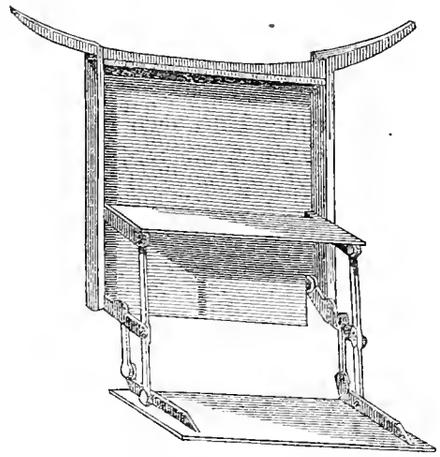
☞ In our June number, we gave an approximate estimate of the costs involved in the manufacture of the open-front Buggy, drawn from one in the establishment of our friends, Messrs. Dusenbury & Vanduzer, of this city. As constructed by this firm, and some other first-class manufacturers, the costs exceed the amount as reported by us, in some particulars; for instance, Messrs. D. & V. give hub-bands, which cost them $4.50 per set; silk for sun-curtains costing $1.50 per yard, and curled hair (they do not use moss) at 40 cents per pound. By some oversight in passing through the press, we were made to give $1\frac{3}{4}$ yards of silk at 90 cents, whereas the manuscript read $1.90. To these should be added a number of contingent expenses, unnecessary to be named in this connection, but which, when summed up, are sufficient to assure "outsiders" that the cost to them is not *all* profit to us.

Sparks from the Anvil.

WELDING STEEL WITH IRON, AND STEEL WITH STEEL.

THE two following receipts embrace the latest experiments. In the case of steel with iron—the parts being brought to the proper welding heat, a mixture of the following ingredients is applied to the surfaces to be joined: boracic acid, 35-6 parts; common salt, 30-1 parts; ferrocyanide of potassium, 26-7 parts; and rosin 7-6 parts. For steel and steel the mixture is—boracic acid, 41-5 parts; calcined common salt, 35 parts; ferrocyanide of potassium 15-5 parts; and anhydrous carbonate of soda, 6 parts. These ingredients are well calculated to clean the surfaces of the hot iron and to insure a good weld if properly used.

A NEW FOLDING STEP.



THIS new kind of Coach-Step is by its inventor claimed to be more firm and not so easily deranged by opening and shutting as was the case with the old mode of construction. When closed, says the French inventor, they are not more clumsy than those hitherto in use with a single step, and being opened they drop (according to the height of the carriage) from 9 to 14 inches. We have heard of one in this city, imported directly from France, but it meets with no favor here. We give it merely as a matter of curiosity.

BUGGY DASH.

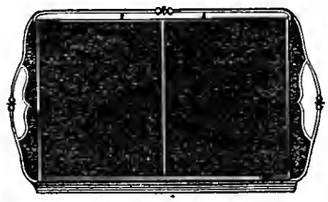


Fig. 1.

Fig. 2.

Fig. 1 is a front view of the present most fashionable New York style of dash, and is applicable to the open-front Buggy illustrated on Plate I. in our last No.

Fig. 2 is a side view of the same dash, showing that it is made to curve forward.

The most fashionable form of dash for a square Buggy will be given in our August issue.

BLACKSMITHING AMONG THE NATIVE AFRICANS.—At Jolleh Bunu's town, sixty miles back of Monrovia, in Africa, the Rev. J. W. Thorne says he saw a native blacksmith's shop in the outskirts of the town, comprising thirty-nine houses. The bellows were made up of a pair of tub-like vessels connected together, covered over with a leopard's skin lying loosely on the top, and having a couple of holders for the hands. The air was conveyed from the vessels to the forge along the hollow of two wooden pipes. Charcoal was used for combustion and heat. And, now, the the native iron being at hand for the work, a man blew the bellows by raising and then depressing the leopard-skin coverings. In this way quite a blast was made and kept up, so that, in a few moments, the iron glowed and sparkled. He noticed, lying about, such rude native tools as hammers, pincers (tongs?), punches, etc., in the use of which the native workmen show some skill, in the manufacture of knives, spear-heads, small hoes, and the like.

The persons engaged in the iron manufacture in the city of Philadelphia and its neighborhood are stated to be over ten thousand, the products of whose industry is $12,857,000 annually.

Paint Room.

A FEW SIMPLE INSTRUCTIONS IN PAINTING A BUGGY.

PAINTING THE CARRIAGE-PART.

WE shall begin with the "carriage-part," which we may suppose the "wood-workman" has deposited in our paint room, finished neatly and smoothly.

1. Having mixed the "priming" of pure white lead with boiled linseed oil, (if the job is to be done in a hurry, with japan instead of oil,) and slightly colored it with refined lamp-black, spread it on the wood-work evenly. This coat when dry has prepared the job for the ironing.

2, 3. Supposing our carriage has been "ironed off," and properly trimmed by the wood-workman, we next give, in succession, two more coats of "lead color," mixed as above, each coat being well "rubbed down" with sand-paper—the first coat (second of the series) since leaving the smith-shop being "sand-papered" very close—here do your puttying—and the second (third of the series) "sand-papered" enough to make a perfectly smooth surface, we then give

4. Another coat of lead—one part lamp-black and two parts white lead (if in a hurry, two parts japan, one do. oil), and one part oil and two parts japan—for a final coat of "lead color." If the color of the carriage is intended to be any other than black, that particular color may be mixed in with the white lead of this fourth coat, instead of the lamp-black. This coat must be "sand-papered" down with paper of a fine quality, &c.

5. Our job is now ready for the "preparation" coat, composed of our intended color, mixed in *boiled* oil and japan, and ground very fine.

6. The next coat is our final one of "color," and should be mixed with *raw* linseed oil and sugar of lead, and nicely spread on with a fine brush. This *raw oil* is particularly necessary where the paints are to be lake, carmine, or some other than a transparent color. At this stage it is very desirable that our job should "shine" as much as possible, from the gloss caused by the oils in the preceding coats. This *oily gloss* is a strong guarantee that the succeeding coats will not "strike in." Instead of the above preparation of the color, some painters use one part varnish and three parts japan, but in such a case their work is very apt to "crack," from the effects of the weather.

7. Next apply two coats of color and varnish, in the proportion of one part color and three parts varnish, after being put on and properly dried, both having been "rubbed down" with a rag and ground pumice-stone, consecutively. Some *lazy* painters "moss" these "color and varnish" coats.

We may here remark, that two coats of color and one of clear varnish are better than one coat of color and two of varnish, in many painters' judgments.

8. Striping the job, if such is required.

9. The final coat is English varnish, every previous use of the article having been American. Before this is put on, try and select a clear and dry day, as by so doing you may escape the trouble and expense of another coat thereafter, on account of its blistering. The getting on of too many coats of varnish is to be avoided as far as possible, since, too freely used, it is apt to impart a green shade to black, and to some other colors a grayish tinge.

We are compelled, by the length of this article, to postpone the painting of the body until the August issue.

QUICK-DRYING OIL FOR PAINTING.

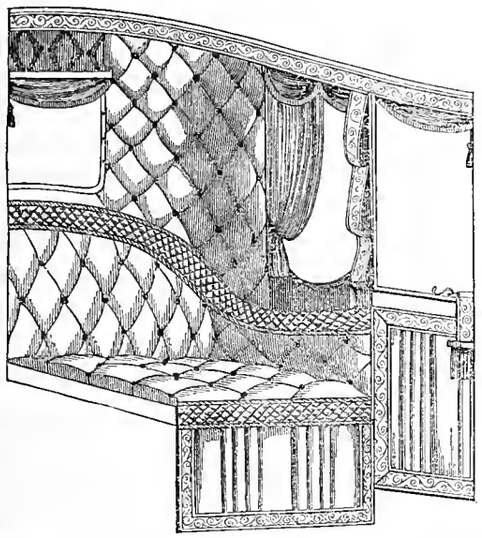
TAKE old linseed oil and mix it with protoborate of manganese, in the proportion of an ounce to a gallon of oil, and put it in a close vessel for two days, exposed to a heat of 212° Fahrenheit in a steam bath, and stir it frequently during the time. This will make a fine article for mixing up a quick-drying paint. Dr. Hoffman says it becomes, by this treatment, of a clear greenish yellow color; remains thin even when cold, and zinc white paint mixed with it dries in twenty-four hours.

WHAT led Macbeth to say that he would die with *harness* on his back? Why, he knew very well that Macduff was about to *tackle* him.

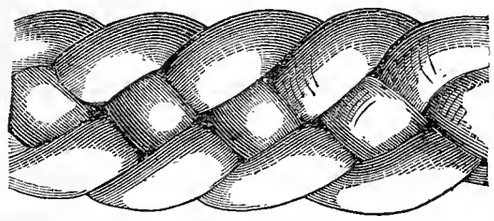
A WITTY lady, being asked by a fellow-passenger the name of the stage-coach (that traveled very slowly) in which they were riding, replied, "I think, sir, it must be the *Regulator*, as all the other coaches *go by* it."

Trimming Room.

DESIGN FOR TRIMMING.



THE above design, contributed by Mr. H. Menshausen, of New York City, is not new, but is very rare, and perhaps we might be justified in saying that there are less than a dozen trimmers in the United States who understand its practical application. At any rate, its rarity justifies our giving it a place in our Magazine. The cut is merely designed to illustrate this peculiar feature, and we have consequently shown the braided arms more in a lateral perspective than would accord with correct mechanical laws.



BRAID FOR ARMS AND FRONTS OF CUSHIONS.

In the second place, we give an enlarged view of a section of braid as it would appear before being stretched endwise and seamed into a coach or other job, which, after such an operation, would appear with smoother edges and more elongated strands.

The trimmings should be formed on a scale sufficiently large to cover a three inch arm, by cutting four long strips of coteline, or silk, each three inches wide, and "whipping" them together. The pipes should afterwards be stuffed with cotton, but not too hard, as by so doing the elasticity requisite in a job of this description would be destroyed. The four strands having been thus properly prepared, should now be braided together in a plait as shown above. The reader has doubtless seen plaits, of a similar character in appearance, made of dark or other colored ribbon, intended to imitate the hair worn by ladies, around the comb, at the back of the head, as a head-dress. The strands should be laid in such a manner, in forming the braid, as to bring *all* the seams on the bottom side of the plait. Some first-class houses in New York, Bridgeport and New Haven use this style of trimming, but only on first-class coach work and generally on work ordered for a foreign market.

The objections to this style of trimming are: first, the cost, and, secondly, its compactness. But in large factories the building of fine coaches is an everyday affair, and it becomes necessary for the proprietors of such to economize and follow a less expensive and plainer style, except on some particular occasion; whereas, in shops where this mode of trimming is only adopted occasionally, they often lavish an amount of labor in other ways expensive and before which even this rich finish appears economical. As to its compactness, it bears no comparison to the herring-bone style, and when rightly made is as soft as any ordinary roll-work. But, in coach work, many consider downy softness and ease the greatest desideratum, to obtain which every other consideration must be sacrificed; hence, the broad, soft diamond, unrelieved by a finishing border of any kind, is a universal favorite, amongst, at least, piece workmen and economical manufacturers.

In order to relieve the apprehensions of our friends, who may think, from the example of a cotemporary, that we have resurrected another *Mister* McLane, who so suddenly sickened and died "one day," after getting out of a job with *his original* employer, we would state that our contributor is well known, and stands as foreman in one of our largest city establishments.

EXPLANATION OF STITCHING PLATE A.

CONTRIBUTED BY A. J. DALY, N. Y. CITY.

No. 1 is a half section of a pattern for facing figure.
" 2 " full pattern for bow cap.
" 3 " quarter of a figure for a dash flap.
" 4 " full figure for a side vallance.
" 5 " quarter section of an oval and vine to enclose figure 5, the lightest ends to join at the center, top and bottom.
" 6 " quarter section of a figure for a small boot center.
" 7 " the half of a corner pattern for a dash.
" 8 " a quarter figure to be applied according to fancy.

M. DE CHATELAIN has just discovered, in the library of the Arsenal, at Paris, the original of the "Squire's Tale," which Milton calls the story of "Cambrescan Bold." The poem is twice as long as the "Iliad," since it extends to thirty thousand lines.

The New York Coach-maker's Magazine.

JULY 1, 1858.

E. M. STRATTON & M. G. TOUSLEY, Editors.

TO READERS AND CORRESPONDENTS.

"J. T., OF IND."—We have always found that ground white lead, thinned with spirits of turpentine, was the best article in which to drive the spokes into the hub of a wheel designed for a business wagon, since it effectually resists the action of the weather, to which they are constantly exposed; but for all pleasure carriages, where the wheels are kept well painted, we decidedly give glue the preference.

"L. H., OF ——."—The allusion to the individual who you "think has run out of soap" would be decidedly rich—were it a fact; but, as that mine is apparently inexhaustible, we fear that your suspicions are groundless. Soft soap, you know, is a first-rate article for cleaning dirty clothes; but it is not very agreeable to have applied to one's face, with an additional rubbing in. We very naturally conclude that such a person's room is better than his company.

"T. S., OF CONN.," who manifests so great an interest in the success of this publication, will feel very much gratified when we inform him that, notwithstanding the hard times, we obtained over *forty* subscribers in the first shop canvassed for this magazine, in the city of New York. The summing up in this city amounts to 250. The most successful year of a similar publication never reached above 55 subscribers.

"B. P. S., OF C. E."—We have no means of ascertaining why the "pome" in our Western cotemporary for March was ornamented with a cut at the head. We can only *guess* that it was intended to show that *somebody* was in distress.

"A. W., OF IND.," "S. H. OF WIS.," AND OTHERS.—You will please remember that in *all* cases where you write to us solely on your own personal business, we require an envelope with your address and a stamp attached to prepay postage on our answer thereto—and unless this is attended to no notice need be expected. *Our* postage bill is very large, and were we, in addition to our own yearly expenses, to add that of others, we fear our profits would be swallowed up very soon.

HOW TO READ THE MAGAZINE.

THERE is a certain order to be observed in the reading of a book, or magazine, as well as in any mechanical undertaking. A literary man can measure the attainments of his neighbor by simply handing him a morning paper. If he is illiterate, the first page is as apt to arrest his attention as the news, or leading editorial, and in nine cases out of ten he will mistake an advertisement, or business notice, for an editorial item; in which case, he will conclude that Editors are great falsifiers.

In this age there are but few persons who cannot read; still, of the entire number who know how to read, there are very few who can understand and judge correctly; and, yet, that class who understand the least are in many cases the loudest critics.

In all conditions of life this class of readers are numerous, and we doubt not but many such will be found on our list. But the worst class of readers, and those whom we most dread, is that *smart* class of men who can find no time to read, but will pick up the Magazine, glance at the fashion plate, pass a complacent criticism, and throw it aside. Bill Muggins, who served his time as blacksmiths' assistant at Carelessville, thinks that the "draft with a horse drawing it is too Frenchy." Mr. Bell, who is a reading man, turns silently to the explanations, and by careful examination not only learns the particular object in placing the others before the public, but finds that the one alluded to is a French design, and given as such; and, when he reflects that those lithographic models are very costly, and much sought after *as suggestors* by American designers, congratulates himself and the readers of the Magazine generally upon their good fortune in being thus able to obtain a dozen or more, at so trifling a cost. Another, whose eye is not trained to detect the minor differences of sweep, moulding, or style of finish, and who is in constant danger of mistaking a Tilbury for a Buggy, or a Cab for a Coupé, glances at the plain practical working drafts "without learning anything;" he at last comes to some serio-comical affair like the chariot of Queen Mab, in our last number, or some other flighty invention, and is greatly edified.

One is constantly looking for some strange thing to excite his marvelousness, and another condemns everything that is not particularly adapted to the wants of his locality, each, of course, looking at the drafts as though they were made to order for his own particular use, and Rowdy Bob, Dutch Jake and Yankee Bill all agree—though they never examined it critically—that the Magazine is out of joint. The real difficulty with all these critics is, that they read and understand the Magazine in too careless and superficial a manner. They glance through it in an unsystematic way, understand things as they read them, "*wrong end foremost*," get the peculiar notion of some correspondent marked down against the Editors, or some advertiser's display digested as an editorial humbug, and by this cross-firing process addle their own brains more and more. Now, all will admit that no one should know how a book ought to be read and judged of better than those who make it. So we will venture to offer a few suggestions.

First, look at the plate next to the title-page, and then turn silently to the page refered to under the draft, after reading the explanation and referring back to the illustration, until its peculiarities and the object of inserting it are clearly understood, then examine the next, and so on until all are understood. Next turn to the editorial department, and see if they make any remarks about the plates; if so, read them, and then read the rest of the items and leaders. You have then got the key to the book, and can turn either to the business, communicated, or mechanical departments. But, above all things, avoid reading the Magazine, or even opening it in the workshop during working hours; should you allow your curiosity to get the better of your judgment, you will destroy the relish of a second reading by too hasty

a perusal, and then, when you sit down to an evening study and have a suitable opportunity therefor, the charm which never fails to attend first impressions will be gone. It is, we confess, no easy task for an inquisitive person to receive a Magazine in the morning and let it remain unopened on his work-bench until he has finished the day's toil, and seated himself at home for the evening. But, since it will test your self-government, and strengthen your weak points, let us insist upon it, that you reserve the first charm for a leisure perusal.

Another caution; be particular to identify each article you read with its own proper author, and note the department in which the article is found. The observance of these rules will save you much confusion, and afford particular gratification to the Editors.

PROSPECTIVE ANNOUNCEMENTS.

We have received a spicy article from the graphic pen of Mr. James Scott, entitled "The Fast Journeyman—a Sketch," which came too late for this number, but will appear in our next; also, a highly interesting continuation of our co-laborer's "Notes of Travel" from New Haven and Bridgeport, giving his impressions of the scenery, business, and other matters of interest to our readers, which, with other communicated and original articles deeply interesting, we feel no delicacy in saying, will present a galaxy of versatile talent and varied interest which will not fail in pleasing our numerous and intelligent readers.

We have, likewise, engaged several artists, in different sections of the country—no less than six—whose talents will assist in making this Magazine worthy of the craft whose name it bears, but whose names we do not care to parade before the reader; but shall let them introduce themselves—some one monthly.

Messrs. Heddenberg & Littell, of Newark, N. J., have promised us a draft of a carriage they are constructing for our Royal cousins in England, which we intend to give soon. We would further announce to our subscribers, that we are about making arrangements with Mr. Lewis Brosi, who contemplates traveling in Europe the coming season, for a monthly correspondence. Should he go, as he now intends, he will travel extensively through England, France and Germany, giving us pen and pencil sketches of everything that may be either useful or interesting to coach-makers here. Through his agency, we hope to secure the regular correspondence of some competent local craftsman, in London, Berlin and other Continental cities.

The "Geometry of Carriage Architecture" will be given as soon as it can be properly presented. We purpose to commence with its simple element, and carry it out in every branch of the art; but it *must be right* before giving it to the public, even should it be deferred two or three months longer We speak thus cautiously—not with the intention of deceiving, but with the determination, if possible, of avoiding the rock upon which a cotemporary made *shipwreck*, by holding out *false pretenses.*

TO WHOM IT MAY CONCERN.

Should any doubt remain in the minds of our friends, as to the success of our enterprise, they will please dismiss it at once. Our confidence in this respect is founded in the fact that we have received up to this date—being four weeks since our first issue—fully one-third of the number of subscribers *ever* taken for any similar publication in America. When it is remembered that there are not more than half the number of coach-makers employed now, which there was three years ago, this may appear exaggeration, but, nevertheless, we declare such is the fact. The very first shop in the city, into which we introduced our Magazine, gave us over forty names, and the remaining shops have done proportionably as well. The second city canvassed was New Haven, where we obtained even more subscribers than here. These two cities have given us *over* five hundred subscribers. New Haven "goes in" *entirely* for our new enterprise, and declares that "the New York Magazine *must* be supported if it takes their last dollar." When the Yankees talk in this manner, there is very little danger of our being "run off the track" by envy. There is another very encouraging fact—it is this, that although our Eastern friends subscribe liberally when they are visited, still the most of our subscribers by mail are from the South and West, particularly from the State of Ohio. We already have ordered a reprint of our first, and have enlarged our edition with this No. *We know* that at the present time, we have a larger circulation than any Coach-Maker's Journal on this continent, and therefore say that this Magazine presents the best medium, for advertising any wares pertaining to the manufacture of carriages, ever published. We trust, therefore, that those who are patronizing other journals, which are scarcely seen by fifty coach-makers in America, will consider it to be for their interest to send along their favors, where we engage to send them among 20,000! See the

Rates of Advertising in this Magazine:

Transient, per line, each insertion,		50
" " square,		$2 00
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Whole page, or whole plate advertisement taken at proportionably low rates.

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OUR ADVERTISERS.

Axles—Wm. H. Saunders, Hastings, New York.
Boxing Machines—Dole, Silver & Felch, Salem, O.
Carriage Couplings—G. L. Haussknecht, N. Y. City.
Silver Plating—J. A. Gardiner, " "
Whip Sockets—P. M'Curdy, " "
Hardware, Trimmings, &c.—Jas. H. Dusenbury, " "
Carriage Trimmings—J. P. Jube & Co. " "
Coach Manufacturers' Stock, &c.—Cornelius Van Horn, " "
Name Plates—D. W. Thomas, " "
Hubs—Stephanas Stearns, North Granville, "
Hubs—C. D. Ingham, Chittenango, "
Hubs—Platt Keeler, Westport, Conn.
Hubs & Wheels—A. Russell, Newark, N. J.
Wheels, Wheels—G. F. Kimball, New Haven, Conn.
Trimming and Finishing Hardware—C. Cowles & Co., " "
Coach Carver—Jas. H. Campbell, " "
Carriage Parts—Dann, Bros. " "
Fine Laces, &c.—Laban Pardee, " "
Coach Lamps—J. Cutler, " "
Recutting Files—J. F. Anderson, Haverstraw, N. Y.
Axles—Jas. M. Post, Newark, N. J.
Axles, &c.—Thos. Breese, " "
Axles—John H. Tuttle, " "
Coach Varnishes—Moses Bigelow, " "
Copal " —D. Price & Fitzgerald, " "

Our patrons will find the cards of the manufacturers and dealers above alluded to by reference to our advertising columns. Those interested should read each advertisement carefully. Our Magazine contains none but those that appeal directly to the pocket interest of the purchaser; so that even the minor shades of phraseology are worthy of study and reflection. We would suggest to our readers the propriety of patronizing the above houses, from the fact that they have stood the test of the hard times, and now come before the craft to solicit their patronage, and the same spirit of enterprise and the same desire to extend their business, in a legitimate and honorable way, will not only act as a spur to keep them in the van of markets and styles, but will induce them to deal fairly and liberally in order to keep their customers from going abroad.

If there is anything which is pleasant, it is to deal with a man who wants custom, and who is sufficiently affable to make it known by asking customers to come and deal with him. If there is anything calculated to throw a feeling of disgust over the sensibilities of a finely-wrought nature, it is to meet with a dry "old crust" who is so self-sufficient as to imagine that the world could not move on without him, and so unsocial that it would break his back to invite a customer to call. Their goods are generally as antiquated as their notions. None but liberal-minded men advertise. Read what they say.

☞ We give in our Home Circle, this month, the first chapter of a beautiful mechanical story, to be continued in our August and concluded in the September number of this Magazine, which, for beauty of conception and tenderness in narration, has seldom been excelled. We hope to be favored with further communications from the same refined and cultivated pen, which we feel confident will be read with the most satisfactory pleasure and profit by every individual in whose heart there flows a love for pure and genuine domestic life. The fair authoress has touched a chord, which must awaken sympathy for that poor but ingenious class of mechanics, whose consumption of the system and the midnight oil has brought abundance and luxuries to a world of less useful minds, but who seldom, as in the case of Charles A. Henderson, ever become so fortunate as to obtain a pecuniary reward for their indispensable labor. But we are anticipating.

☞ Will the friends of The New York Coach-Maker's Magazine take the trouble to show it to every Coach-Maker within their reach, whether boss or journeyman, and urge them to subscribe for it at once? By so doing you will not only aid its circulation, but at the same time will benefit others. The importance of encouraging such a work as ours, at the present time, will be apparent on a little reflection, and, as the times *are* a little hard, we hope to have a *little* gratuitous effort from *all* who have long desired to see an organ for the craft aiming to take a high position among other publications of the day. We hope, also, to have such communications from our friends qualified by experience and ingenuity, as shall impart variety and freshness to our columns. Even should they be a little *rough*, they will be none the less acceptable, as the Editors will see that they are properly "dressed up" for the public eye.

☞ Our June No. was sent to a great number of subscribers whose names had been sent in before publication, some of whom have forwarded their subscriptions, but there are still many who have forgotten that our terms *are in advance*. There are likewise some to whom the first No. was sent in hopes of getting their names for our work before his issue; to all these we would say, we want all the patronage we can command, and, which is equally important to us, *all the money we can get*. Will our friends see what they can do for our enterprise, in perfecting clubs, &c. Please examine our notice to club agents on page 17, June No.

☞ Those who value our Magazine and are preserving it to be bound at the close of the year, are invited to look at Mr. Stocking's advertisement on the cover. He proposes to have suitable and characteristic stamps, of original design, made expressly for our work. All our subscribers who can, conveniently, will do well to remember this fact, and favor him with their patronage. When bound (and we intend to furnish title-page and table of contents with the May No.) it will make a handsome volume of literary and mechanical matter, either for the workshop or parlor table, and something that will increase in interest—

especially will it be so to your children—long after you have ceased to use the drawing-knife and plane.

California Life Illustrated.—Our friend, the Rev. William Taylor, who appears equally at home, whether standing on the head of a whisky barrel on the dock preaching, or facing the gamblers in the streets of San Francisco, has sent us a copy of a book he has just issued, with the title which heads this article. We have read it through (a thing we rarely do), and can say we have been very much delighted with the author's story from beginning to end. Its instructive and moral tone recommends it to every reader who wishes to avoid the quicksands on which many an unfortunate man has been wrecked, in his search after that, the love of which has been pronounced to be the root of all evil. Published at 200 Mulberry st., N. Y.

TRADE SUMMARY.

In this city trade is quite dull, manufacturers not employing more than half the usual number of hands they have been accustomed to, except in one or two instances. In better times the number of men in this branch of business amounted to about 1000.

A correspondent at Madison, Wis., reports business as being "very poor and money very scarce."

From Willoughby, O., we learn that trade "is awful," and "you cannot begin to think how hard the times are. Provisions are cheap, but there is no money to buy with."

In contrast with the above, another correspondent, at Rainsboro, O., says: "Our business in this section of country is improving very much."

In New Haven, Conn., the men are mostly working at reduced wages, but are full of hope that business will soon improve and banish the effects of a dull winter, through which they have recently passed.

In Canada trade is said to be as dull as it is generally in the United States, which we had hoped had not been the case.

The Australian trade, which is chiefly in the hands of our Boston friends, may be said to be "no better than elsewhere."

The California market is glutted, and although very little beside "jobbing" is done there, still that *strange land* has a supply of carriages for at least one year. The average exportations thither from New York, Boston, and a few other parts, are about seventy-five wagons and carriages monthly. Invoice prices are rarely netted to the shipper, when risks, interests, commissions, &c., are very sure to eat up all his profits.

Discovery of a Leibnitz MS.—Accounts from Hanover announce that a manuscript, entirely written by Leibnitz, and forming part of a refutation of Spinosa, which was never completed, has just been discovered in that city.

Editorial Shavings.

Carriages in the "Exposition of Swiss Industry."—An intelligent correspondent of *Porter's Spirit of the Times*, writing from Switzerland, says he saw there, from the canton of Berne, a very handsomely finished private carriage, the price of which was 3,500 fr. (or about $245). The workmanship is excellent, and the "entire build," in lightness and elegance, only equaled by some of our own manufacturers. A trotting wagon from the Canton of Aargau, very excellently built, and intended for a double or single team. The wheels are light and well put together; price 350 francs, (or about $56). This price is evidently not the manufacturer's *first* price, as the vehicle had seen some service. Two private carriages from the Canton of Zurich, price 2,600 francs, or about $416; and 2,800 francs, or about $448; elegantly finished. The corners of the window (*window glasses*), ground glass, of one of them, flowered with border lines, had a very good effect. A diligence, a sort of stage-coach, got up without regard to expense; also, a traveling carriage, got up without regard to horses! as it must have weighed tons. Every spoke of the wheels would have served for a "back-log," to a wood-fire."

The First Coach in England, &c.—The first coach in England appears to have made its appearance in 1557, or eight years after its introduction into France. It was rudely constructed, and, as the art of making was not yet understood in England, it was imported from the Continent. It was not until the close of the sixteenth century when carriages of good workmanship were employed by persons of quality. Henry IV. had one, but without straps or springs. In the age of Queen Elizabeth they had assumed various forms, under the name of *Whirlicotes*. The Duke of Buckingham, in 1610, drove six horses, and the Duke of Northumberland, in rivalry, drove eight. Carriages were first let for hire in Paris, in 1650, at the Hotel France, and hence their name.

Thunder-Bolts and Broken Axle-trees.—The ancient poets, particularly Homer and Virgil, were very fond of magnifying the virtues of thunderbolts, and consequently have represented the old sooty god, Vulcan, as employing his choicest and best workmen in the manufacture of that article, of which he is reported to have had the oversight.

In words of implication, the poet slanderously lessens the importance of chariot building, when he says:

> "Inferior ministers [workmen] for Mars repair
> His broken axletrees."

Had old Mars been half as particular as some *men* in our day are, he would not have "stood that anyhow." Just as if a *simple* thunderbolt of old Jove would require more skill in its production, than would be required in

making and welding an arm to the broken axle-tree of a war-chariot, in the proper repairing of which the fate of a whole nation might be involved. This, we would think, was favoring the Thunderer, at the expense of the majority of Vulcan's customers, both gods and men. But monopolies have always proved great evils, of which, doubtless, our readers have had manifest proofs during the past few years. We are glad to find that the late crisis has *brushed away* some of them, and that consequently there will still remain a chance for all to live.

A NEW PRESERVE—THE LADY-JAM.—We have often heard of such "jams" as currant-jams, raspberry-jams, &c., but never until now did we hear of "the lady-jam." The correspondent of a daily cotemporary, who subscribes himself "An Up-town Resident," complains in bitter language against the "lady-jams" in the city cars. We presume "this deponent" is some old crusty bachelor, who does not appreciate "*the article*." We advise him and others, sensitive in this respect, to always patronize the 'bus, and give up the cars to "the hoops" exclusively, without so much grumbling about that over which no man *can* exercise control. There can be no doubt of the fact, that *the ladies are the* ONLY *sovereigns in this country!*

JOURNEY FROM ROME TO NAPLES.—THE VEHICLES ON THE ROAD.—Dick Tinto, in the *Times* for Dec. 26, 1857, says: "The next day, by noon, we reached Capua, sixteen miles from Naples, and communicating with it by railroad; we preferred to continue, however, in our vettura. Several miles before entering the city, our approach to it was announced by unmistakable signs. The broad paved road was covered with vehicles of new forms, with harnesses of peculiar fashion. There were oxen yoked together with horses and asses—a triumvirate exclusively Neapolitan. There was a droll mixture of negligence and display—of don't-care and care-a-good-deal in everything we saw. Portions of the vehicles were painted fiery red, while other parts were torn, worn, and dilapidated. The harnesses and saddles of carts and wagons were glowing with brass and bedizened with ribbons and red flannel, while old ropes, rags, and jagged strings dangled here and there to supply rents and repair damages."

AN "OLD WHIP" *vs.* RAILWAYS.—Perhaps the distinction between *where are you* and *there you are* was never more happily defined than in the words of an English "whip," at the time when railways first came into vogue. "A railway," says he, "why, there's the engine goes a bursting, or is blown up, or they are running into each other, or over *presempices* (precipices), and then *where are ye?* Whereas a coach-wheel may bolt off, or a *h*accident occur —mayhap you get a bruise or two—mayhap a broken limb; but *there you are*—we sees you, and we picks you up, and carries you to a hospital; now that's what I calls a *h*adequate *h*advantage." Precisely so; the Editor and the Johnny Bull "whip" are perfectly agreed on this "point."

"A STUMP-ER."—A friend of ours from "out West," (he will please to pardon this allusion to him), had more than half persuaded us to "pull up stakes" and start out West with "our household goods," where he assured us we could make our fortune at coach-making, in five years; when, picking up a newspaper, all *our calculations* were "knocked into pi," by the following extract from a letter, dated from MOUND CITY, Pulaski, Ill.:

"A farmer in New England, living comfortably by his thirty acre possession and his trade, that of wagon-maker, thought to better his fortune, and that of his two daughters and son, by emigrating to Iowa. He readily found a purchaser for his snug and really beautiful home, and with three thousand dollars started West. Arrived in Iowa, he visited many of these paper towns, and finally made a location in a thriving village, near the geographical centre of the county. Property commanded pretty 'steep' prices, but he succeeded in buying out an earlier settler, agreeing to pay one hundred dollars per foot front for the lot, and eight hundred dollars for improvements, consisting of a small one-story frame house, slab-shed for horse, well, 12 feet deep, and the oak-board fence around the premises. He turned the shed into a wagon-shop and commenced work, paying very high prices for every inch of timber which he had to use. Provisions were very high, and, economize as his good wife would, it was found that ten dollars per week were necessary for his household wants. He could not get money for his work. In a word, he could not make ends meet; and, at the end of the year, he sold out for fifteen hundred dollars what had cost him three thousand dollars. His family were dispirited, but there was now no home for them except in 'the West,' and he was *en route* for Kansas when we left him."

We have now concluded to "wait a spell," until the comet gets out of the way, or "*something turns up.*"

RESPONSIBILITIES OF CAB OWNERS IN FRANCE.—A case of appeal, involving the responsibility of masters for the acts of their servants, and which has excited much interest in Paris, was lately decided in that city. Some time ago a cab driver, named Collignon, assassinated one of his fares. He was tried, condemned, and executed. The widow of the murdered man laid an action against the owner of the cab driven by the assassin, from whom she claimed 50,000 francs damages. The court condemned the owner to 10,000 francs damages, and his appeal against this sentence has been rejected, and the decision of the court below been confirmed.

A MONSTER CARRIAGE.—Unless some of our readers have been more searching in their readings than ourselves, they have never before read the *veracious* history we now transfer to our pages from that interesting sheet—*Harper's Weekly*. Here it is: "At the time when Rabillac assassinated Henry IV. (him who had neither "springs" nor "straps" to his carriage), he was sitting in a carriage, so large that some of his immediate friends were within with

his majesty, and yet no one of them saw the blow given, so vast was the carriage." According to this writer, coaches at this time were as large as houses! This story *may be true*—the coaches *may* have been "as large as houses;" but one is very naturally led to inquire, *how large must have been the horses that drew them?*

The gentlest taskmaster we ever knew was a blacksmith, who said every evening to his apprentices, "Come boys, let's leave off work *and go to sawing wood!*"

COACH-CARVING.

An Introductory Letter.

New Haven, Conn., June 7th, 1858.

Messrs. Editors,—Adopting the principle, that my light will be none the less after enlightening my neighbors, I shall proceed to give a few practical suggestions in coach-carving, and you are at liberty to publish them if you think that they will be of interest to your readers. Should my project meet with your approbation, I intend to give practical illustrations of the first principles of ornamental design, as applicable to coach-carving.

Within the past few years, carving on coach and carriage work has become quite fashionable with us, and very extensively adopted. The great obstacle in the way of its more general application seems to be, first, the expense, and secondly, a lack of knowledge as regards ornamental design, on the part of those who have the drafting of carriages, in not making a proper allowance for its introduction. Ornament, when introduced, should have some purpose; that is, should be useful, as well as ornamental. There should be a starting-point, a beginning and ending, so that the eye may trace every line. In many instances, where the attempt is made, it is without any particular design—jumbled up together to fill some panel or corner.

Now, the beauty of ornament lays in the elegance of outline, and the proper manipulation of detail, with due regard to proportion; not overladen, nor too meagre. The great mistake in many instances is the excess of elaboration, which makes a confused mass and offends the eye. In carriage carving, the more simple, elegant and light, the more appropriate; and which, introduced, should be properly distributed, so as to balance well.

These few hints are merely preliminary to what I intend hereafter to say, and, if agreeable to you, you will soon hear from me in the way of illustration for your next number. Friend Tousley departed so suddenly, that I was unable to bid him God-speed. But success to The New York Coach-maker's Magazine. May your motto always be *Excelsior!* From your humble servant,

Jas. H. Campbell.

Helps and Hopes for the Young.

HOW SHALL I FIND HAPPINESS?

My young friend, do you really desire to be happy? if so, listen to the counsels of a friend and he will teach you the whole art of happiness. An allwise Providence, in its dealings with man, has made a curious disposition of this precious boon; indeed, we may say, that in the entire range of man's desires there is none so difficult of access or so deeply puzzling in its nature as this. Wealth, honor, and friendship, each has its proper avenues of approach, and the natural instinct brought into action by a strong desire to possess them is the surest guide to their attainment; but with happiness Dame Nature has reversed all rules, and baffled the keenest instincts. The worldling who seeks it finds it not; while those who disregard it seldom return empty.

Happiness is a gift which Heaven only can afford to bestow upon the truly good, and the selfish wretch who seeks pleasure instead of duty is not sufficiently elevated above the brute to deserve or enjoy it. In this life, joy and grief seem strangely blended. Sweet fountains often well up from the very pit of sorrow, and the placid brow can only feel the fanning wing of celestial visitants. Pleasure, when sought, often proves the censer of a fury; it changes the eyes to blood-clots, the heart to fire, and the hair to a nest of vipers. Turn your back upon it with manly fortitude. Seek duty and self-denial as footprints of the Divine. The chastened spirit, like the bruised flower, is redolent with the odors of happiness and self-content. How noble! to see the strong will of a moral hero turning to battle with his own desires, and rebuke his own unhallowed longings. Greater than Alexander is he who can conquer himself! Kings and courts have wasted a nation's wealth without adding a single charm to their fêtes, or a new pleasure to their existence. The great Czar ruined his health in the enjoyment of dainties, until he actually envied the gusto with which the peasent devoured his simple fare, and at last, as a penance to outraged nature, came down to bran-bread and active field duty. The present is a dissolute age; the force of example and lack of good counsel render the term of apprenticeship a fearful ordeal. Few, very few, of the young men who come to our cities to learn a trade bring a sufficient amount of cool philosophy and good practical sense to take them unscathed to the end of their trial. They begin by taking a cigar; continue to acquire filthy and useless habits, and thus step by step descend the ladder of dissipation. Apprenticeship is the seed-time of after-years; one may as well try to escape from his shadow as to put away the effects of early discipline. Remember that happiness is the outgrowth of principle, and that principle can never be established until you have obtained a complete mastery of yourself. Pleasure-seeking is at best but the blossoming of an animal nature; its ripened fruit, misery, crime and suicide. Subdue your budding desires—like apples of the Dead Sea, they are fair to look upon, but when tasted only fill the mouth with dust and bitterness. T.

A Lawyer's carriage is only a legal conveyance, and it is the client, as often as it stops at his door, who pays for the drawing of it.

ONLY ONE BRICK UPON ANOTHER.

EDWIN was one day looking at a large building which they were putting up just opposite his father's house. He watched the workmen from day to day, as they carried up the brick and mortar, and then placed them in their proper order. His father said to him:

"Edwin, you seem to be very much taken up with the bricklayers; pray what might you be thinking about? Have you any notion of learning the trade?"

"No," said Edward, smiling, "but I was just thinking what a little thing a brick is, and yet that great house is built by laying one brick upon another."

"Very true, my boy, never forget it. Just so it is with all great works. All your learning is only one little lesson added to another. If a man could walk all around the world, it would be by putting one foot before the other. Your whole life will be made up of one little moment after another. Drop added to drop makes the ocean."

Learn from this not to despise little things. Learn, also, not to be discouraged by great labor. The greatest labor becomes easy if divided into parts. You could not jump over a mountain, but step by step takes you to the other side. Do not fear, therefore, to attempt great things. Always remember that the whole of the great building is only one brick upon another.

LITERARY ITEMS.

THE Shah of Persia, who is a great amateur of Arabic caligraphy and water-color painting, is having prepared, under his immediate and personal superintendence, a magnificent edition of the "Arabian Nights' Entertainments." During the last seven years the most celebrated Persian painters have been engaged in the illustration of this work, which has already cost 300,000 f., and will be a production unique in its kind.

A MUSEUM OF GERMAN LITERATURE.—The house and gardens inherited by Jacobi, near Dusseldorf, where so many of the great literary men of the last age—Goethe, Tieck, and others—were accustomed to assemble, has been purchased for the Malkasten Art Society. In it will be deposited their library and collection of art, and will be a suitable monument of Germany's most brilliant literary epoch.

WHAT THE PRESS SAYS OF OUR MAGAZINE.

From the *New York Tribune* of May 21.

THE NEW YORK COACH-MAKER'S MONTHLY MAGAZINE.—Here is the commencement of a novelty among the thousand and one periodicals which swarm in so many departments of business and amusement. It is devoted to the interests of the craft whose name it bears, and proposes to give designs and drafts of improvements in the art, with a copious miscellany of reading matter, notices of new inventions, and other matters of interest to the trade. The first number, which we have examined, looks promising.

From the *New Haven Morning News* of May 21.

THE COACH-MAKERS AND THEIR ORGAN.—We have been amused and interested in the perusal of a new mechanical publication, bearing the title of "The New York Coach-maker's Monthly Magazine." The fashion plates, elegant in style and tasteful in proportion, are finely engraved, and, in keeping with the whole work, beautifully printed. As a literary work, it aims at the elevation of the social tastes and literary interests of the working man. The maintenance of such a communicative medium, places coach-making in a high position in the scale of trades, and we hope, for the honor as well as the interest of that intelligent class, that they will apply their economy to the curtailing of useless expenses, and patronize this work liberally. The life-like portrait of our much esteemed townsman, Mr. James Brewster, is alone worth the price of subscription.

From the *New Haven Journal and Courier* of May 21.

INTERESTING TO CARRIAGE-MAKERS.—We have seen the first number of "The New York Coach-Maker's Monthly Magazine," edited by E. M. Stratton and M. G. Tousley, 106 Elizabeth street, New York. It is a valuable periodical for the fraternity, being devoted to its literary, social and mechanical interests. It is well supplied with engravings of different styles of carriages, but what particularly pleased us was, a striking likeness of James Brewster, Esq., of this city, the veteran and greatly esteemed carriage-builder, of whom a biographical sketch is also given.

We are informed that there are no less than 75,000 carriage-makers in the United States and Canada, a number capable of handsomely sustaining an organ, and that there are fifty large establishments in New Haven. The coach-makers are the only mechanics who support an organ, and of course they should have a commendable pride in so doing.

From the *New York Christian Advocate and Journal* of June 8.

THE NEW YORK COACHMAKER'S MONTHLY MAGAZINE is published by E. M. Stratton, 106 Elizabeth street, New York, at $3 per annum. It is a noble quarto, beautifully illustrated, and edited with genuine tact and spirit. We are surprised at the amount of interest thus thrown upon a single mechanical craft. We commend the work to every coach-maker—it cannot fail to reimburse him for its expense by improvements in his business.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME AND ABROAD.

AMERICAN PATENTED INVENTIONS.

April 20. RUNNERS OF SLEDS.—Silas Bullard, of Hartland, Mich.: I do not claim giving a movement to sleigh runners independent of the load that is above them.

Nor do I claim giving the runner on one side a movement independent of that of the other.

Nor do I claim the use of the link joint for connecting sleigh runners to the frame work of a sleigh.

But I claim constructing the rear runners of sleighs in separate frames, each frame being hung by link joints to the cross bar, H, so as to admit of a fore and aft rising and pitching movement in each runner, which shall be independent of the movement of the opposite runner, as set forth.

I also claim the construction of the tie beam, H, so contrived as to hold the separate forward runner frames at the proper distance apart by the fastening bolts, B b, near its ends, and at the same time to allow the independent rising and pitching movement in each runner by making the mortise holes in H' so large as to admit the bars, E" E", to play loosely therein, so as to allow of a slight rolling motion on the axis of H', whenever the runners rise or pitch, from the irregularities of the ground.

April 27. ATTACHING SHAFTS TO VEHICLES.—J. A. Boyce, of Monroe, N. Y.: I claim attaching the shafts or poles to the axles of carriages or other vehicles, by means of the combination of fastenings, as described, namely, the bolt connection, and the projections, c c, on the pieces, b b, made to bear against the depressions, d d, in the double concave ring, e, the whole being constructed and arranged in the manner and for the purpose set forth.

ADJUSTABLE SEATS FOR VEHICLES.—George J. Lucas, (as-

signor to himself and John G. Lucas), of Poughkeepsie, N. Y.: I do not claim broadly and irrespective of the arrangement, shown, so connecting wagon seats that one may be folded or closed over the other, for this has been previously done.

But I claim the connection of the two seats, B C, by means of levers, D D, and links, 1 1, substantially as and for the purposes set forth.

May 11. HUB MACHINE.—Lovett Eames, of Kalamazoo, Mich.: I claim operating or giving the feed movement to the carriage, B, in which the mortising tool is fitted or placed, by means of the horizontal rotating disk, K, provided with the ledges, e f, and having its shaft, G, stepped in the treadle, H, in connection with the rollers, i h, on the shaft, 1, which is rotated from the driving shaft, F, the parts being arranged as shown, or in an equivalent way, to operate as described.

May 18. FORMING THE HEADS OF CARRIAGE SPRINGS.—Samuel H. Hartman, of Pittsburgh, Pa.: I claim forming the head or socket on the head plate of a spring, by subjecting them to the action of the dies and counter dies in the die blocks, F F' F", and the levers G G' G", in the order of their sequence, substantially as represented and described.

May 25. OMNIBUS REGISTER.—R. E. House, of Binghampton, N. Y.: I claim the combination of a step, protected substantially as described, resting on a yielding support, such a spring or its equivalent with recording mechanism to be operated by the step, substantially as and for the purpose described.

LATE EUROPEAN PATENTED INVENTIONS.

Joseph B. Howell and John Shortridge, Sheffield, Eng.—an improved mode of rolling steel for springs.

Geo. T. Bousfield, Loughborough Park, Brixton—improvements in machinery used in the manufacture of springs, and in the application of springs to carriages.

Samuel Roget and Daniel Roget, Blackburn—an improved method of coupling and uncoupling railway, tramway, and other carriages, wagons, lorries, trucks, and other vehicles.

J. H. Johnson, 47 Lincoln's Inn Fields, London, and 166 Buchanan street, Glasgow—an improved signal apparatus to be attached to common road carriages.

Thos. Playle, Chatham—improvements in two-wheeled carriages.

James Boydell, 65 Gloucester Crescent, Camden town—improvements in carriages propelled by steam or other power.

Vital de Tivoli, 67 Lower Thames street, London—an improved omnibus.

John H. Johnson, 47 Lincoln's Inn Fields, London, and 166 Buchanan street, Glasgow—improvements in the boxes and journals of carriage wheels and axles, and in journals and bearings generally.

Chas Risworth, Sheffield—an improved construction of spring for sustaining loads and moderating concussion.

Geo. Richardson, 2 Copenhagen street, Islington, and William Richardson, 5 Ranelagh Grove, Pimlico—the construction of three-wheeled carriages, and omnibuses so constructed to be called first-class omnibuses.

Patrick Heyns, 2 Wade's Place, Poplar—improvements in wheels and axle boxes.

Charles Girardet, Vienna—a new movable shaft-bearer, or supporter of coaches.

William E. Newton, 66 Chancery Lane, London—the application to carts or other vehicles of apparatus for weighing the load contained in such vehicles.

Robert F. Miller, Hammersmith—improvements in omnibuses.

John Skelly, Kilcurry, Ireland—improvements in carriage springs.

Paul J. Gautrot, 206 Regent street, London—instantaneous tents, invented purposely for the use of public vehicles called omnibuses, but which can be also applied to any others, open vehicles, carts or wagons and traveling hawkers, at a very low cost; new system of shelter against the inclemency of the weather.

Andrew Whytock, 12 Little St. Andrew street, Upper St. Martin's Lane, London—improvements in apparatus to be applied to wheels to facilitate them in traveling on common roads and other surfaces.

Benjamin Beale, East Greenwich, Kent—an improved method of cutting and shaving spokes.

Bland W. Croker, Vienna—improvments in axle boxes to render them self-lubricating.

The Business Man's Calendar.

G. & D. COOK & CO.'S JUMP-SEAT BUGGY.

Illustrated on Plate VII.

MANUFACTURERS often demur against the principle involved in all Shifting-seat Carriages, on account of its changing the bearing of the load upon the springs, and thus rendering it impossible to so regulate their force as to make them equally efficient under all circumstances. This is truly a serious objection, and one that, from the nature of the case, can never be entirely overcome; yet the necessities of the age call for their manufacture, and, right or wrong, they *must* and will be built.

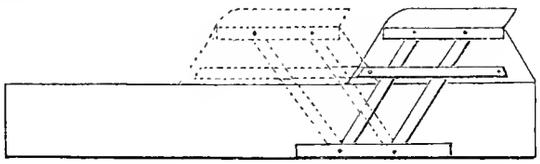
If everybody were rich, there would be no necessity for them to suffer any inconvenience, and, with carriages as with tools, they could keep a general assortment, and order a vehicle for every use—hunting, traveling, or business; but when a customer has only the means to buy one pleasure wagon, and that one must do duty in a variety of ways, he will naturally reason that a light, well-constructed vehicle, of this description, is more convenient, according to its cost, than either a single or double-seat carriage. In the west, the shifting-seat buggy is very popular, as the country is quite level, and many of the roads are planked or Macadamized—so that a single horse can easily draw more than a single seat will accommodate; and, for those whose families (like their means) are not very large, this style must be regarded as a necessity; hence *a standard style*. But a shifting seat, constructed in the ordinary way, is a most uncouth, complicated and unscientific affair. It is difficult to make, unpleasant to shift, inelegant to the eye, and, worse than all, cuts and defaces its own finish, even when used properly and judiciously.

The finished and much-needed improvement shown on Plate VII. was invented by the above-named influential firm, in New Haven, Ct., about four years since, but has never been manufactured outside of their establishment, from the fact that the right to do so has never before been offered to the public; yet they have continued to manufacture and perfect this style of vehicle, and they now send a large number, annually, to their customers south and east—and they can be seen in most of the carriage repositories on Broadway, in this city. From the above facts, it has been supposed that they did intend to retain the exclusive use of their invention; but we found, upon inquiry, that their quiet use of the improvement arose more from a pressure of business in other directions than from their desire to monopolize its use, and that they are not only willing to bring it before the public, but are also willing to divide the profits of its use for a reasonable and proper compensation. The style, as it now appears, is as modern in its outline and as elegant in its proportion as its shifting device is original and perfect.

By way of giving the reader a more general idea, we have illustrated the two different positions of the seat, by

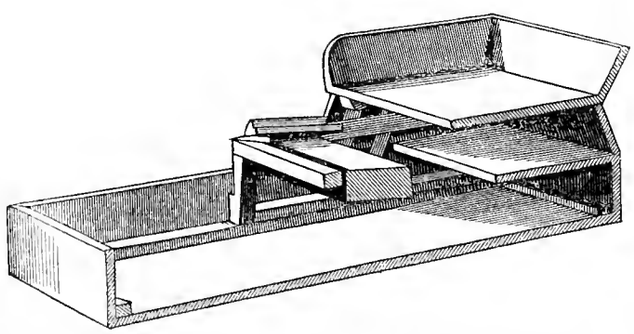
two different drafts—the one as a shifting-top buggy, the other as a two-seat vehicle with the top removed.

The *jumping irons*, by which the seat is lifted from its bearings and carried in a semicircle to another position, are arranged thus:



Two irons are fastened at the top of the seat-block, by means of bolts—the one near the front, and the other towards the back. These pass down to the top of the rocker, and are attached to the body, as shown. The slant of these irons not only raises and carries the seat and its side blocks back to a corresponding position in the rear, but braces it in such a manner as to hold it firmly in its place, by its own weight and that of the person sitting on it. It also effectually conceals the front seat, and all traces of its being a shifting-seat vehicle, from the fact that it requires no friction plates on the edge, and the seat fits as neatly to the body as if permanently attached to that one place. If the seat is to be moved thirteen inches, the irons must be slanted in that direction just half of the distance, and the lower bolts, acting as the pivot of a circle, will lift and carry it backwards or forwards, when pushed. In order to steady these traverse irons, a light plate is attached to the seat-block, passing on the outside in such a manner as to allow them to pass between it and the block, latch-form. A strap of iron is also screwed to the inside of the body, to serve as a friction plate and to form a solid surface for the jump irons to rest against. This device is not only simple and effective, but very scientific, and reflects a high degree of credit upon the inventor.

We will now saw the body through the centre lengthwise, cutting off all of its appurtenances, and take a general survey of all its parts.



The above sectional drawing shows an enlarged view of the top buggy on Plate VII., but our engraver-artist has given it a tight seat, and has not only failed to discriminate between the relative thickness of a panel and that of the bottom of a seat, but has given a machine-like clumsiness and heft to its various parts that the job itself does not have. But the operation of the front seat is the main thing introduced to be shown. When raised to its proper position, the front seat is the same height with the hind one, and its neatly finished base corresponds with the style of the seat blocks and finish of the back seat. When folded back, as shown in the engraving, the skirt of the front seat block folds in upon the bottom of the seat, being attached by hinges for that purpose; and although it stands above the level of the body, still the back seat will pass over it, and the blocks upon which it rests will effectually conceal the open space and seat, finishing all as though it had no second seat. But when the main seat is thrown back as shown, the front seat can be turned over to its place, and another simple but perfect little arrangement expands the skirts as it raises, until they attain just the proper position to place the flanges (cut upon the bottom) into its place between the side of the body and seat part, and the outside of the skirt firm and level upon the edge of the body. When thus placed the skirt fits so neatly, both to the seat and to the edge of the body, that an inexperienced eye would not be able to detect its changeable nature, but would suppose that it was a light, elegant pattern of a two-seat body. The little arrangement that adjusts the skirt is no more than an iron slide fastened across the seat bar diagonally. At the back side of the bar it is, perhaps, an inch higher than the bar, but it recedes as it approaches the front corner, and finally rounds off with it, as shown in the engraving. When the skirt is folded in it lays upon the highest point of this slide, and as the seat raises, the slight inclination of the slide is rendered relatively more circular by the sweep of the seat, which just regulates their spread until they drop over the edge and fall into their proper places. The skirts, thus resting upon the edge of the body, bear the weight of the load, and release the back hinge and the seat bar from all strain; a thing not usually attained in the ordinary pattern of a shifting seat. All of the above points are specifically covered by the Messrs. Cook & Co.'s patent, and the perfection that they have attained to has cost them much time and labor, and deserves that protection which the law extends to meritorious inventions; and which, alas! charlatanry and quackery have brought into such general disrepute. But an intelligent public must discriminate between the useful and finished invention, and the crude spawn of an idle-brained and unscientific inventor. We hope and trust that the proprietors will arrange their rates by some rule, taking into consideration the number of hands employed, and at so much per hand, thus proportioning the price, by a just and reasonable rule, to the business of each applicant. This will constitute it a fair and legitimate traffic, and recommend the improvement to the favorable notice of first-class men in those sections where such styles are popular. We are informed that such a course is to be adopted, and should they be so fortunate as to secure men to introduce it, who represent fairly the system and standing of their home interests, the coach-making public will have no cause for complaint.

We omitted to mention that the seat blocks on the main seat are generally covered with a leather boot; this lightens the appearance of the body, and, when finely and neatly checked, forms an original style of finish which is of itself highly becoming, and corresponds finely with the general design of the vehicle.

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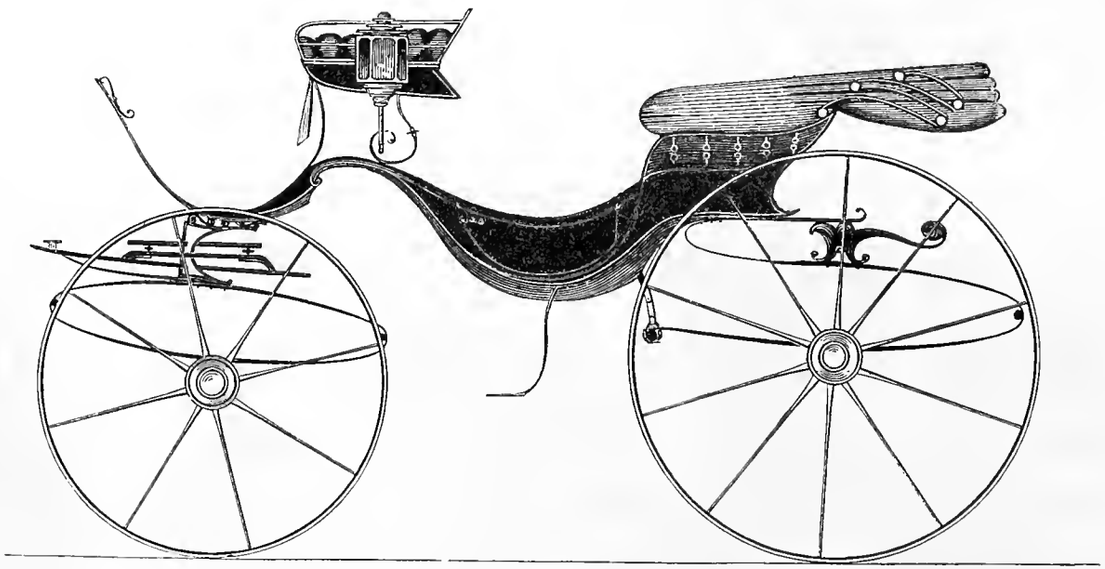
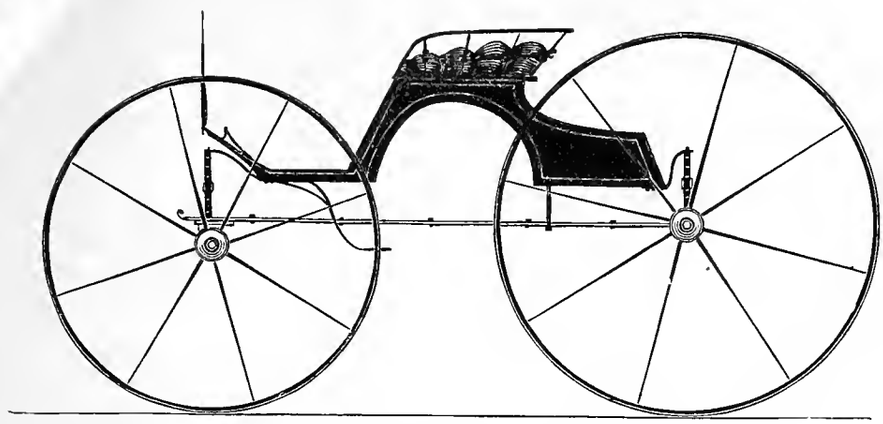


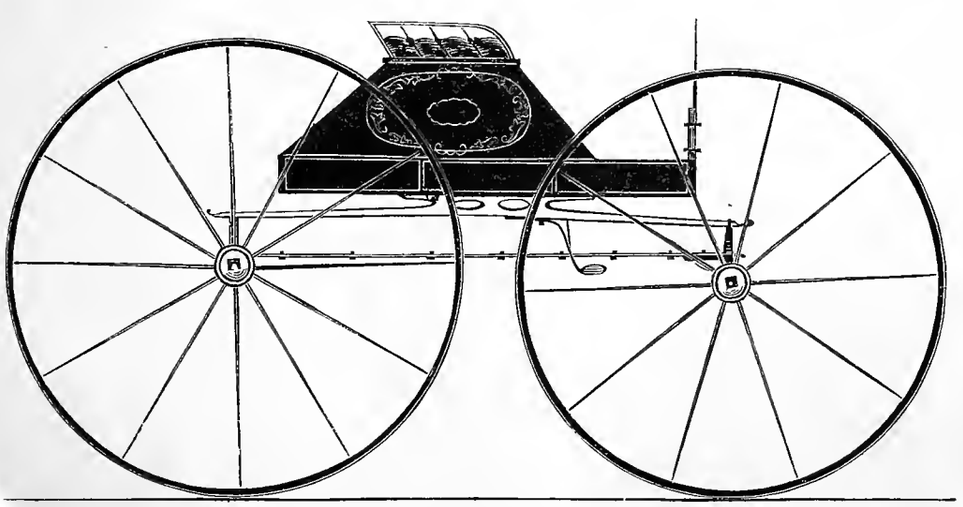
CRANE-NECK PHÆTON.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 50.



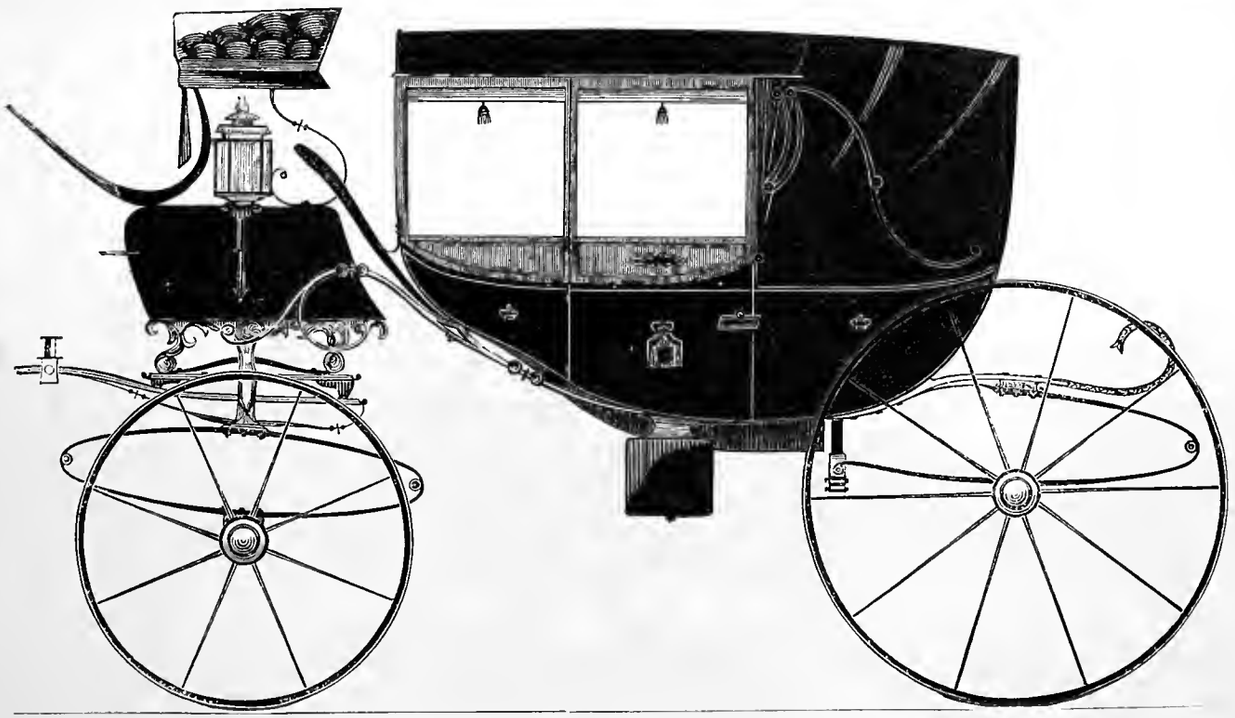
CUT-UNDER BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 50.



TROTTING BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.
Explained on page 50.



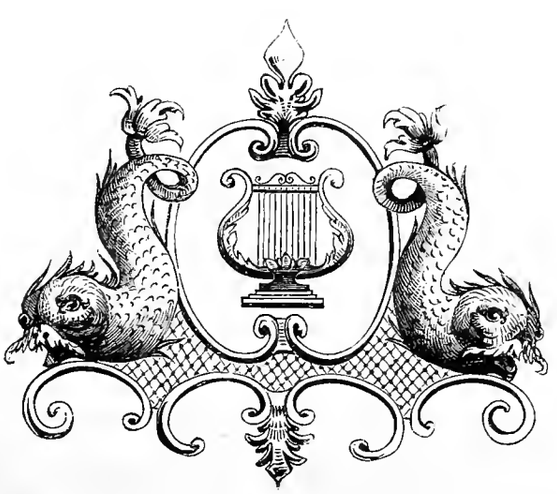
FRENCH CALECHE.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 50.

No. 1.

No. 2.

No. 4.



No. 3.

ORIGINAL ORNAMENTAL DESIGNS.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 53.

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, AUGUST, 1858. No. 3.

Miscellaneous Literature.

THREE-WHEEL PLEASURE CARRIAGES.

In mechanics as in literature, the shallow and novel often takes the precedence of that which is sound and useful. But, who shall take up the pen of criticism to draw the line of demarcation between that which is superficial and that which is genuine? The *modesty* (*?*) as well as the perseverance of that flighty class, who delight in ringing their insane antics in the ears of a sober public, have long since become a proverb; and woe to the skeptic who dares to dispute their claims, or whose duty it is to dissect the fallacy. A whine, long, deep and loud, is certain to follow, and the shadows of the mighty dead—Harvey, Newton, Galileo, and, perhaps, the Savior himself—must be conjured forth and spirited around the beaten track as samples of their persecuted merit. But those vapid whinings are about played out, having served as a mask to every humbug from the days of Mesmer down to the present time; attention can no longer be diverted by the cry of "*Fogy*," and those who are attempting to gull the coach-making public with oddities may well try to monopolize attention, lest the medium of a candid review should loosen their hold upon public sympathy, and, at last, throw them upon their own merits.

In reviewing the various patents that have for the last few years been crowded upon the attention of any unsuspecting circle of readers, we find a few which have not only had the respectable parentage of sound mechanical genius, but which were original in their conception and practical in their tendency; but the vehicle under consideration is a twin to that summing up of mechanical inconsistencies, the one-wheel gig, and belongs to that family of *mis*-carriages which, as public chroniclers, we are bound to show up.

But while we affirm, in advance, *that there are obstacles, in the way of building good three-wheeled pleasure carriages, which are insurmountable*, we shall waive its elucidation until we have presented the reader with a summary the subsequent trials and mishaps which have befallen of its first conception in the cradle of the Old World, and its present experimentor in the new. It is, however, unnecessary to enter into a detailed account of all the facts; suffice it to say, that models have been made in France, England and Germany.

The third wheel was first placed in the rear, then changed to the front, and thus applied to the London cabriolet; after which it was somewhat improved upon and applied to carriages of the cab form in Berlin. But the main defects could not be overcome, and it was soon wisely abandoned, save in the cards of French lithographers, who seized upon the "item" as a relief from the monotony of sober sketching, and gave it to the New World as a caricature of inventive folly. One of these lithographs found its way to New York among a host of other designs, some practical, others not; and after being culled by New York dealers, this adventurous card fell into the hands of the American patentee. He first made a draft of it as if set upon Sprout's springs, and illustrated it; but this was a sad blunder, as the finished model soon indicated. An elliptic was next applied, and one change succeeded another until at the time of its exhibition at the State Fair, held in 1856, at Cleveland, Ohio. Here its uncouth appearance was the cause of considerable merriment on the part of carriage-makers, and, to crown its mishaps, it broke down twice while standing quietly under the pavilion, from the effects of the agents getting in and out to display its fine qualities to visitors.

The cross-perch, with supporting rods, was added to stiffen the front, and thus prevent the vibrations of the front wheel, the purchase of which was enormous, from the fact that the pivot-circle stood supported by jacks above the driving wheel, but the addition of this unsightly appendage did not prevent the mishaps. Many expedients, to save the credit of this new vehicle, were tried, but with no better success, until at last the workmen, who had remodeled it, came to the sage conclusion, that it could not be made to operate successfully, and at last flatly refused to tinker at "the humbugging thing any longer." But the perfecting of this invention had become a ruling passion, and slight obstacles were not to impede his progress; he sought out another carriage-ironer, and the "editorial flings," both domestic and convivial, which followed, would furnish serio-comical sketches that would be worthy of the pencil of a Hogarth. Finally, that unruly machine was put off upon a brother inventor, of "Giant-cob-mill" notoriety, but the vehicle would not stay sold, for, like the man

who purchased and read Gulliver's tales, he returned a complaint to his merchant, that it was all a humbug.

The steam fire-engine finally came to the "capitol city," and its wheel-within-a-wheel suggested the idea of constructing the pivot-circle in such a manner as to rest directly upon the axle, and to enclose the driving wheel. This, with its old-fashioned C spring arrangement, now constitutes its chief peculiarities, as it has lately been presented before the public. This mammoth pivot-circle, some three feet and three inches in diameter, must be made sufficiently heavy to prevent the vibration of the wheel from springing it out of true, and we leave the reader to imagine how uncouth an appearance it consequently must now present with its numerous bolts, rivets and attachments. The second American model was the one which signalized its first use with a celebrated "smash-up" in the city of Baltimore.

An anecdote, not in order, but worthy of notice, in connection with this class of vehicles, may not be out of place, if the reader has a disposition to be merry or can appreciate a sparkle of fun. The American patentee, in common with other inventors, seemed to have a desire to furnish his *protegé* with some high-sounding cognomen. That of "Equirotal" finally turned up in a work published by Wm. B. Adams, an author on *English Pleasure Carriages*, and its chime fell like music upon the ear of the inventor, and he immediately adopted it with no proper knowledge of its signification, calling it an "Equirotal Phæton." Now, the joke in this instance consists in the fact, that the term equirotal is applicable only to carriages, the wheels of which are of equal height or diameter; and could not, therefore, be with any propriety applied to a vehicle of this character.

But aside from all the blunders of the past, which serve to illustrate the folly of the inventor, rather than the defect of the principle, there are other obstacles of a fundamental character connected with the use of three-wheeled carriages which can never be obviated. In the first place, carriages of this description are very complicated, and the cost of their manufacture is far greater than that of ordinary carriages. In the second place, the strain upon a single driving-wheel is so great that it requires an amount of bracing and heavy ironing which gives it the appearance of a piece of machinery, more than that of light fancy carriage work. In the third place, the driving-wheel must stand in front of the body, and the horse must be put far enough away from the wheel to keep his heels from coming in contact; this places the motor too far away from the point of draught, and for convenience would need a rider, *à la* volante. In the fourth place, this class of vehicles are unsafe, as a sudden tilt down a bank, or the crossing of a gutter in a diagonal direction, would be almost certain to turn it over. In the fifth place, they are less steady and pleasant to ride in than a four-wheeled carriage, for when a side wheel strikes a stone, or an obstruction of any kind, the shock is equalized at the centre of the axletree, and the force of the shock at the wheel is far greater than at the point where the head-block rests. On the contrary, a centre-wheel controls the entire front of the vehicle, and it, consequently, goes bouncing up and down, with nothing to modify the shock; with no equalizing advantages to lessen the stroke of obstacles over which it must pass.

From the foregoing facts, it will be plainly seen that no amount of perfecting can ever render this style of carriage either cheap, safe, comfortable, elegant or durable, and much less combine all those qualities, without either of which no style of vehicle is fit to bring before an intelligent public as an improvement. T.

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER III.

A brief recapitulation of the matter contained in the last chapter on this subject—Dr. Abbott's Egyptian Museum, and the fragments of an ancient Egyptian Chariot, comprising an entire wheel, two pieces of the body and a portion of the shafts; the whole illustrated from photographs on the wood, by six characteristic engravings, followed by critical descriptions and observations by a coach-maker.

Ut varias usus meditando extunderet artes Paulatim.

VIRGIL.

IN our July number we took a general survey of the rise and progress of carriage-making among the ancient Egyptians, and have shown, to our satisfaction at least, that the art of building and using them originated in and was confined to that ingenious people—ingenious as contrasted with the surrounding nations. In order to illustrate our subject the more fully, and to redeem the promise made to the reader in our first chapter on this subject, we shall devote this article to the illustration of "the Fragments" of an Egyptian Chariot, taken from a mummy pit at Dashour, and brought to this country by our distinguished and respected countryman, Dr. Henry Abbott, and on exhibition at 659 Broadway, and numbered on the Museum catalogue 386 and 387. Mr. Snare, the superintendent in attendance, to whose kindness we are under many obligations, will take much pleasure in showing and explaining to our friends—the coach-makers visiting New York—not only these fragments of a vehicle of an early age, but likewise a countless collection of the rarest and most interesting

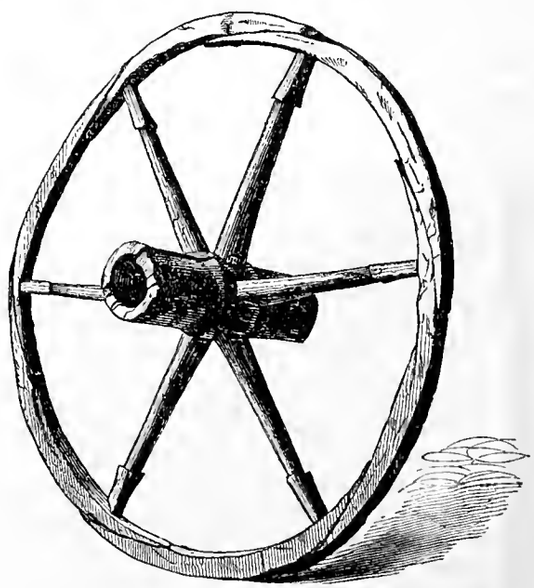


Fig. 1.

remains of antiquity to be found, probably, outside the British Museum. The Doctor's long residence in Egypt has afforded him a fine opportunity to gratify these antiquarian tastes, for which his nature and education had fully prepared him, and of which his interesting collection

gives ample proof. Our readers, who, after reading our remarks, will naturally have a disposition to see these remains, may therefore anticipate a rich treat in visiting this institution, should business call them here.

Incidentally remarking that the illustrations in this chapter have been photographed from the original on the block, and engraved by our fellow-craftsman, Mr. Waters, of this city, expressly for our Magazine, and at considerable expense, we now proceed to give the fragments in detail, after which we shall close with a few general observations pertinent to the subject.

The first illustration (Fig. 1) is the wheel, which may be looked upon as unique, and the most interesting object imaginable to the modern coach-builder, since it serves to solve a most important question in the early history of wheel-making. We have critically examined various examples of the wheel, as delineated in the lime and sandstone bas and alto relievos, furnished us by the indefatigable exertions of modern discoverers, without any satisfactory solving of the problem, in our mind, as to how the felloes of ancient wheels were united at the joints. But now, with *the thing* itself before us—the workmanship of an ancient member of the craft—we find it differs materially from the theories of historians and speculators, and places a key in in *our* hands, which enables us to throw a flood of light upon this *questio vexato.*

The wheel here illustrated is 2 ft. 11 in. without, and 3 ft. 3 in. with the wooden tire seen in fig. 3 below. The hub, which is 14½ inches long, 5 inches through the middle, and 4½ inches at the ends, presents not the least appearance of ever having been burthened with a box, and the jagged end—that in front particularly—looks as though a linch-pin had given it many hard rubs, in its revolutions upon an axle, evidently of wood. This axle was 3 inches in diameter at the shoulder and 2¾ inches at the end. The hub, as will be seen in our illustration, is very much split up, from hard usage. This hub has every appearance of having been turned in a lathe, for we find channels formed around it, just such as some imprudent hub-manufacturers at the present day still make, for no better reason than to give the painter use for his *waste* putty and *rusting knife.*

Fig. 2.

The spokes (Fig. 2), of which we give a lateral view, are of a very peculiar finish, and intended to be highly ornamental, and very probably once belonged, in this wheel, to some chariot in the establishment of some one of the long succession of the Pharaohs. The photograph in this instance is so true to art that, as the reader may observe, it gives even the indenture in the central part of the spoke. Further down may be seen a bolt-shaped mortise, the uses—if any other than ornamental it had—of which we are at a loss to conjecture. It may, as some have supposed, been made for some kind of a brace to pass into, and serve as a strengthening to the wheel, but a close observation of the mortises in the specimen has not at all satisfied us that any such brace was ever employed there. The mortise is 2½ inches long; ⅞ in. at the widest, and ⅝ in. at the narrowest end, and is placed 1⅝ in. from the hub tenon. The tenon at the hub is 1½ by ⅝ inch, and, as will be seen in our example, *a little out of square*, at the shoulder. But that which is strikingly observable is the fact, that this tenon has *a shoulder all round the spoke.* The spoke above the tenon at the hub is 2 by 1⅜ inches, *rounded in an old-fashioned way*, and finished, apparently, with a "dreadfully rough" rasp. The "tangs" for the felloes are 1 inch, and square in form, passing only about two-thirds through the felloe proper, and intersecting the joints. There is not the least sign visible of an auger, or bit of any kind ever having been employed in making any mortises in this wheel, or other fragments of the chariot. Had such been the case, there would certainly have been traces discoverable in the *bottom* of the numerous mortises, which do not extend entirely through the raves and felloes.

The felloes next claim our attention—and such felloes! In this instance the "wear and tear" of the wheel has lent *enchantment* to the picture, and places the one given in *Sir Gardner Wilkinson's Ancient Egypt* a long period this side of the Flood, or else the camera has been more true to *our* original than *his* artist was to his. These felloes, six in number, meeting at the point of intersection by the spokes, as seen in Fig. 1, are placed overlapping each other, and prevented from being reduced in circumference from the pressure of a superincumbent weight by the tenon of the spoke; no evidence of any band having ever been applied. These felloes, "got out" 1½ by 1¼ inches, are "half-rounded down" on the inner side about 3-16ths of an inch, the whole being further strengthened by the *tire* (Fig. 3),

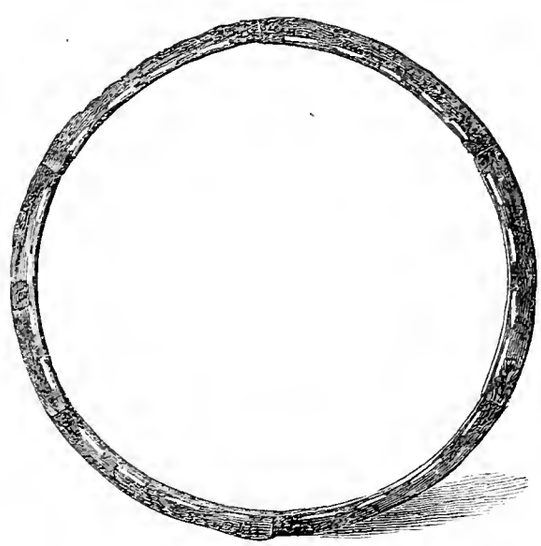


Fig. 3.

if we may be permitted to dignify a wooden circumference with that name. This "tire" bears a strong resemblance to our modern felloes, except that, instead of dowels, they are connected together by a sort of male and female joint, or mortise and tenon, extending from the inside to two-thirds of the depth of the *tire* outward, so that it is hidden at the "tread" of the wheel. This *tire* is divided into six sections, with six joints, meeting, when placed around the wheel, *half-way between the spokes*, and has formed along its inner edge twenty-five narrow mortises, varying from 2¼ up to 2¾ of an inch in width. These mortises, doubtless, were intended for the purpose of securing this *tire* upon the wheel by strips of hide, or other fastenings, which not only served to secure the tire to the felloes, but also answered the purpose of binding the felloe more securely at the joints, where, as contrived, some provision was much

needed. The tread of this *tire*, 2 inches deep and $1\frac{1}{4}$ wide, looks as though it had seen some service, and had been used over roads anything but Macadamized.

Fig. 4.

Fig. 4 is the end rave for the top of the chariot, 2 feet 3 inches between joints, and $1\frac{1}{4}$ inch wide, with eight mortises of various widths formed along its bottom edge, as seen above, with tenons at the ends, 1 inch by $\frac{1}{4}$ inch. A short distance from these tenons is a $\frac{3}{8}$ hole, in the rave, which, doubtless, was formed for the insertion of a cord, passing over the connecting side-rave to bind these "raves" more firmly, and which was much needed on account of the light tenon required, in order to avoid the weakening of the side-rave, by a wide mortise. The curve in *this* rave is 5 inches from a straight line drawn from the ends.

Fig. 5.

The part assigned to Fig. 5 has puzzled us not a little, but we conjecture that it represents the side-rave of a chariot body, and one strong reason for such a conjecture, is, that the mortise at one end and the tenon on Fig. 4 match exactly, and so form the top-end and side-raves of a chariot. This also is pierced with twelve mortises, at the under edge, as in the end-rave.

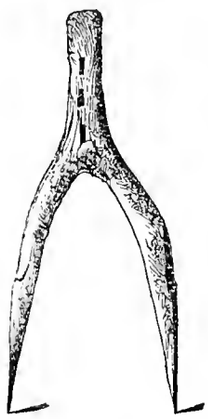


Fig. 6.

Figure 6 presents the reader with the "last remains" of our "fragments," in which the camera not only gives a a correct outline, but *has preserved even the color of the wood!* This at the top, as it stands here, is 2 by 3 inches, with three mortises, respectively $1\frac{1}{4}$, $1\frac{3}{8}$, and $1\frac{1}{2}$ inch long, by $\frac{1}{2}$ inch wide, intended for securing it to the body in some way.

In Sir J. Gardner Wilkinson's work, before referred to, he has supplied to Fig. 6, here given, two shafts, and says the total length was 11 feet. The reason why these shafts should be made thus long is not reconcilable with modern custom, unless it be accounted for on the hypothesis that the chariot was hung upon very low wheels.

The wood of this chariot (we mean what remains of it,) is very heavy, as heavy as any timber we are acquainted with; and so very hard that time and the worm have made but very little impression upon it. Of one thing we are satisfied, and that is, that this chariot, according to the fragments, was never visited by any son of Tubal-cain during its construction, for there was originally not a single particle of iron used in the making; for *even the tire, as we have seen, was a wooden one*, and, to use a common expression, "is as hard as iron!" The tread of this tire (Fig. 3,) bears the marks of hard usage over rough roads, as before remarked, and, could it speak, what tales of bloodshed and carnage would it not reveal! But, alas!

"How is thy glory, Egypt, passed away!
Pause, child of ruin, o'er thy humbled name!
The works, alone, that mark thy deep decay,
Now tell the story of thy fallen fane!"

The great length to which this article has already extended obliges us to defer any general observations upon the subject treated of, which would seem to be called for, until our next number. S.

For the New York Coachmaker's Magazine.

THE FAST JOURNEYMAN.—A SKETCH.

BY JAMES SCOTT, OF OHIO.

ABOUT six months ago, a tall, slab-sided, lantern-jawed, home-spun clad, and intensely verdant-looking individual presented himself at the carriage-shop of John Hubs, in search of a job as body-maker. There happened to be a vacancy in that department at the time, so the boss, after some hesitation, occasioned by the unpromising outward appearance of the applicant, agreed to give him a body to build on trial, stipulating that, if it did not suit him (the boss), when completed, it was not to be paid for. To this condition the jour. promptly acceded, and retired to bring his tools from the railroad station.

Next morning, as the last clang of the seven o'clock bell gave place to sounds of busy labor, the new hand made his appearance. A bench was assigned him, and he proceeded to unpack his kit—and such a kit! Two planes, four chisels and a gouge, a colossal drawing-knife, one hammer, the remains of two saws, a superannuated broad-axe, and a piece of chalk, together with several nondescript-looking utensils of his own make, the names or uses of which were unknown, save to himself. The "stuff" for his job was given him (sawed out), and divesting himself of coat, vest, and hat, he—to use a popular phrase—"went in." Well! I have seen planing machines of various kinds, but that chap beat them all. Steam-power degenerated into an old fogy institution of questionable utility, compared with the astonishing velocity of his plane. The perspiration ran in streams down his freckled face, and hung in drops like miniature icicles from the point of his smeller; the shavings flew; the bench creaked and groaned; the windows rattled in their frames, and the hands looked on in mingled astonishment and awe! That he was fast, *uncommonly* fast, was the opinion of all; nor were they mistaken, for, in the short space of two days and a half, the body (a Rockaway) was completed. I would very willingly, for the edification of the craft, describe that body, if it could be done with pen and ink, but, as nothing short of an elaborate drawing would convey a correct idea of how the thing looked, I will not try. Just imagine a rough dry goods box with a standing top on it, and you won't hit very wide of the mark. As the boss had been out of town on business since the day subsequent to that on which the body was commenced, speculations were rife among the hands as to what he would say, or do, when he returned. Some thought the "green un" would have to pay for the lumber that was spoiled; others, that Hubs would "boot" him out of the shop; while several predicted an aggravated case of assault and battery with intent to kill. The affair, however, terminated in a different manner. On the completion of his job, the new jour. ascended to the paint shop and requested the painters to

"prime" it. Joe Brown, the foreman, who, by the way, was an inveterate practical joker, saw a chance for fun, and forthwith concocted, with mischievous ingenuity, a plan to get rid of the unsophisticated fabricator of bodies, and afford, at the same time, a rich treat for the boys. So he informed him that they were very busy just then and could not attend to it, but he would hire a man to do it in the afternoon. Suspecting nothing, "greeny" was satisfied and went to dinner.

As he approached the shop on his return, a shrill whistle—suggestive of mischief—might have been heard, followed by an unusual bustle among the hands. This, however, was apparently unnoticed by him, for he entered wearing his usual unconcerned expression of countenance; but that expression changed with the rapidity of lightning to one of stupefied horror and surprise, for, on casting his eyes in the direction of his job, he beheld a brawny "nigger," armed with a long-handled brush, applying a liberal coat of *white-wash* to the back panels, the sides being already done. At first, he seemed to doubt the reality of what he saw, for, with gaping mouth and protruding eyes, he watched in silence the operations of the colored individual, until the spell was broken by some one choking in an abortive attempt to suppress a laugh. Aroused by this he strode toward the African, and shaking his fist at him fairly screamed:

"See he-ar, you everlasting black skunk, what in tormented lightning are you a doin' to that ar body?"

"Doin'!" replied the darkey, bringing his brush to a charge, as if to repel an attack, "*Mister Brown hired me to wite-wash it; he says he's a gwain to use it for er chickin coop!*"

The sequel is soon told; the fast jour. from the rural districts got his eyes opened. He "smelt a mice," and, within an hour, a tall chap about his size was seen, carpet-sack in hand, streaking it for the dépôt at a pace which suggested to passing pedestrians the propriety of giving him a wide berth.

NOTES OF TRAVEL.

BY THE JUNIOR EDITOR.

CHAPTER II.

"When thou haply seest
Some rare, note-worthy object in thy travels,
Make me partaker of thy happiness."—SHAKSPEARE.

RESPECTED SENIOR:

A fortnight's stay in New Haven has wrought marvelous changes in the outer man of your associate, who, from being shrunken and shriveled by a teasing cough, contracted amidst the dust and foul air of the metropolis, has again resumed his usual proportions, and the little room (not in the Tontine) can scarcely contain him—when the nights are pleasant.

Much has been written by newspaper scribblers about the shady freshness and romantic beauty of the "City of Elms;" but there is a something about the very air of this quiet retreat which inspires and quickens, but which, like the odor of flowers and the sweetness of song, can be enjoyed but not described. I have often been delighted, in reading the chaste effusions of that inspired priestess of nature, Mrs. Sigourney; but here, in the midst of suggestive surroundings, I can read poems from nature, pure, chaste and original. Those long, quiet streets—like dim aisles in some Druidic temple—whose arching elms look down and nod impressively; those beautiful parks, where the "hunted squirrel" may build her nest in peace, or leap from branch to branch above the classic shadows of Old Yale; those secluded work-shops, where high-browed intelligence may blend the study of art with the communings of nature; those retired residences, from whose open casements the eye may trace indefinite objects upon the silver bosom of the Long Island Sound, and the cheeks freshen in the sea breeze, as it sings in its might, or lulls among the flapping leaflets. All these, and a thousand other associations combine to render this spot both the home of genius and the parent of song.

As a coach-making city, New Haven stands forth among the most extensive in the country, and, perhaps, in the world. In ordinary times, no less than 1,700 men find employment at the various branches directly connected with coach and carriage manufacture, and almost half as many more in the manufacture of stocks, such as springs, axles, malleable castings, lamps, laces, finishing hardware, &c., &c.

The greater share of the work built in New Haven is sold in a foreign market; some in New York, but a larger portion South and West, so the styles are as various as are the markets for which they are intended—some plain, others highly carved and finely ornamented.

Many of the workmen have been thrown out of employment during the last winter, and all feel poor—some, with debts hanging over them, feel *very poor;* but still my visit to New Haven has added *two hundred and fifty odd names to our young but giant list of subscribers, a respectable number of first-class advertisers to our business calendar, and a brilliant list of draftsmen and correspondents to our plate and reading columns.*

Of the Western work, I found but one copy in the whole city, and that was sent without orders—I think, at least, *without pay.* Who writes those tremendous *love* letters from New Haven for it? Echo answers—*Humbug!* Its only reader is a staunch friend to the new Magazine, and gave us a solid testimonial of his sincerity by taking up a fine club for it. The heavy coach factory of Messrs. Lawrence, Bradley and Pardee gave a list of about forty subscribers, and the mammoth light-carriage manufactory of G. & D. Cook & Co. took nearly as many copies. Other heavy coach and carriage factories did proportionately well, and our city list will more than double, if times revive this fall.

Some of the prominent artisans and first-class stock manufacturers deserve special notice. For instance, the trimming and finishing hardware manufactory and general furnishing house of the Messrs. C. Cowles & Co., whose store and mammoth work-shops are illustrated on the second page of our cover. In passing through this establishment, I noticed many things that were novel and interesting. The cutting of steel dies, used in the manufacture of curtain frames, ornaments, &c., is an ingenious process, involving the use of more than a thousand tools, among which are a great variety of files, or, rather, tools of every conceivable shape with files upon the points or sides. The "spinning" (or rather shaping in a lathe) of lamp-caps, sockets, &c., from silver shell; also, the cutting, grinding and engraving of glass, used in the manufacture of coach lamps, is done here in a very perfect and artistic manner. The refuse chips of silver, which fall from the lamp and curtain-frame factories, are used in the manufacture of ornaments and silver-

headed nails, as are the tin scraps into buttons and black-headed nails, by a long row of *chattering* machines, worked by *silent* women.

One of the *human* machines with which he manufactures hot swedged carriage nuts picked up a cold one from the block, and setting it on its edge hammered it into an elongated slug. "There," said one of the proprietors, "that is the kind of iron that I use." Plating, dash-making, bending, turning and casting—each is done systematically in its own department. A large and powerful engine drives the machinery, and a well situated in the cellar furnishes water for the whole establishment, as well as for the fire department on "washing days." Cool, retired and pleasant, this establishment stands buried in the luxuriant foliage of shading elms, and the busy hum of life pervades the whole; but, smothered by thick walls, it sings drearily above and around those spacious store-rooms, into which the fruits of its industry and perfection are garnered.

In the line of wheel-making, the establishment of G. F. Kimball is worthy of notice. His factory occupies *spacious* apartments in the large carriage buildings of G. & D. Cook & Co., on State street. Here the work is systematized and divided in the most minute and scientific manner: each man understanding his part, and performing that part in the most perfect and expeditious manner. The whole is aided by a complete and finished set of machinery, which, with "bones of iron and sinews of steel," directs its stroke with unerring aim and almost lightning rapidity.

Messrs. Cook & Co. use about one-half of the number which he manufactures, which amounts to about twelve sets per day. Large store-rooms were filled with the finest of white hickory spokes, and the best quality of hubs and felloes. A light wagon, weighing 145 lbs., sent from the livery stable of Mr. Jarvis Jocelyn, for new tires, fell under my observation. Its wheels, which were manufactured by Mr. Kimball, had been submitted to the hard ordeal of livery hire among the fast boys some two years and a half, until its tires were unfit for further use, and yet these *exceedingly* light wheels were as true and solid in all respects as when first turned out of the factory.

The systematic manufacture of running parts is also a fixed fact, under the business-like touch of the enterprising firm of Dann Bros., and not only are they supplying large orders to Southern and Eastern dealers, but are furnishing that class of home patrons who have become aware of the fact, that economy of time and excellence of manufacture are the legitimate results of systematic operation.

The lace manufactory of Laban Pardee is the largest and best establishment, in that line, in New Haven. The fringes, tassels, ropes, speaking-tubes, with all other manufactures in his line, are fashioned to the latest style, and are patronized by the first-class coach-makers in this city.

At the carving establishment of Mr. Jas. H. Campbell, I had the pleasure of examining a large portfolio of splendid original designs, which will appear from time to time in the columns of the Magazine. Mr. C. stands high as a designer in his line, and his ready pencil traces at will the most perfect and artistic designs, and in the most cool and off-hand manner imaginable.

At the establishment of Mr. A. J. Cutler, who devotes his entire attention to the business of lamp-making, I saw large quantities of those "nocturnal fire-bugs" which too rarely beautify the vehicles of this age for either the safety or convenience of night riders.

There are others that deserve a notice, but space at the present time forbids any extension of my rambles in New Haven. At some future time I may extend the field of my notices.

The coach-makers of New Haven are fully as enthusiastic upon the subject of establishing a National Society of Coach-makers as are our friends at home. Several attempts have been made to sustain such a union of interests in this city, but the platform was too narrow, the ruling spirit too radical, and the sphere of their operations too limited.

A fire occurred in the establishment of Messrs. Bogart & Betts, just as I was commencing to take up a club of ten, which resulted in the total destruction of their premises, and the temporary demolition of our arrangement. They have since taken a large stand on Goff street, above Messrs. Atwater & King's.

CHAPTER III.

To write Notes of Travel for a monthly periodical is no easy task; matter accumulates so fast, and months roll around so lazily.

Why was I not born to wield the pen of a fast daily?—and being *that*, why was I born at all? Yet, since I was "dipped in ink," why was I not dyed all over?

But *patience*, O Son of Scriblerus! scribe of a mighty clan—artificers in wood and iron, and curious workmen in many things—thine is a noble heritage: to cheer the heart of labor and ennoble the sons of toil. The deep screech of the locomotive here broke in upon my meditations. After a flying trip to New York, and a second trip down the New Haven Railroad, I was landed in the famous little city of Bridgeport, the residence of the greatest showman and the smallest dwarf in the world, and justly noted for its extensive manufacture of fine coaches.

Bridgeport is situated on Long Island Sound, is beautifully laid out, and, like most of the border cities, finely shaded by elms and maples. "Golden Hill," which is the residence of Messrs. Frederick Wood and Geo. Keeler, in the trade, and the *bon ton* of outside circles, is a perfect paradise.

Iranistan, the famous residence of P. T. Barnum, still remains a blackened heap of ruins, and tall grass and weeds almost hide the displaced fountains that once scattered their silver spray in the sparkling sunlight. The stooped form of the veteran showman, as he paced heavily and thoughtfully among the flowery walks of his son-in-law's residence, contrasted strangely with the dashing ideal which I had formed in my mind of his real appearance.

Among other beautiful monuments that adorn the new cemetery, is one erected by "Tom Thumb" above the remains of his father. The shaft is tall, and the workmanship fine; but the top is finished with a perfect statue of the dwarf! *What taste!*

The "Society movement" is, if possible, more popular in this city than in our own, and even the minor towns along the Sound, and inland, as far as I can learn, are all awaiting further information, and are deeply anxious to have a hand in it.

Previous to my arrival the workmen at the Tomlinson Carriage Co.'s manufactory, led off by Mr. Cooper, had taken up a fine large club for the new Magazine. After making that still larger, I proceeded to visit the other large factories, and had no difficulty in forming large clubs in each, until *my list of names numbered upwards of a hundred*, which is, considering the depression in business and

the number of hands employed, a larger proportionate list than has been given by any one city that has been visited.

Yet, in passing through all the factories, and becoming personally acquainted with all the workmen as well as the proprietors, I found but *one solitary copy of the Western Magazine, either in or around the city*, and as with the lone copy in New Haven, it was sent gratis; and its reader was not only a warm friend and patron to the new work, but a club agent for and regular contributor to it. Now, the question arises: Who writes those beautiful epistles from Bridgeport? Echo rolls back—(on three wheels)—

> "'Tis not himself! yet *'tis so like him*
> That were it not a shadow
> I would *swear* it was his brother."

That fellow should have canvassed Bridgeport.

There are in all seven coach and carriage factories in this city, which, in *ordinary times*, employ from five to six hundred men, but at present the number falls far short of that.

Prominent among the stock manufacturers is the hub, spoke and wheel works of Lathrop & Son, and the bending establishment of Barlow & Smith. The plating and furnishing house of Messrs. White & Bradley, whose brilliant array of coach lamps, beautiful ornaments, and unique patterns of coach handles are but the prelude to as fine stock of trimmings less conspicuously displayed, is an interesting place to visit. Also, the Coach Lace Co.'s works, whose beautiful scrolls and "scentless flowers" spring up from silver grounds, whose glossy fringes elongate under the hand of art, and where ropes, cords, and tassels are twined with consummate skill. Mr. Parrott's Anglo-American varnish is attracting considerable attention, and his other brands are highly spoken of by all the Bridgeport coach manufacturers. The Spring Perch Co. manufactures a new style of "French ear" spring, which is more durable and far more elegant than the ordinary style. All of their springs are tapered from the centre of each leaf, *finely tempered* and *thoroughly tested*. Mr. Bradley showed me a very powerful reflector, designed for head-lights to locomotives, but applicable to the lighting of streets, to policemen's lanterns, &c., which will throw a light by which fine print can be read some forty rods, and which will illuminate a dark alley to an incredible distance.

After securing a number of draftsmen and contributors, and doing a large amount of business, I took my departure.

At Stamford I found two fine coach factories. Here I took a list of twenty names. From thence I retraced my steps, and took the Naugatuck Railroad. While at Naugatuck, I paid a visit to the wheel factory, so noted for its good wheels, and for having given birth to the most speedy spoke turner that has ever been invented. Instead of one cutter having to move from end to end, doing all the labor, some thirty knives play directly upon the spoke, and as it revolves—feeding off and on to give it the oval—dresses it from end to end at the same instant. While in Naugatuck, Plymouth, and Wolcottville, I took clubs of ten or upwards at each place, and small clubs at intermediate stations. At Winsted, I visited the Clifton bolt-works, and took some names.

Crossing to the Housatonic Railroad, I visited the axle works and coach factory of Mr. Dalzell, at South Egremont. Here I found something worthy of notice in the new patent axle which is being manufactured. The improvement consists in the addition of a hollow nut on to the end of the box (for fine mail axles), which contains a quantity of oil, and which, by creeping along the channel on the upper side of the spindle, keeps the whole completely lubricated. Mr. D. furnishes the large establishment of Lawrence, Bradley & Co. with his fine quality of case-hardened axles. A club was taken in his axle factory, and I journeyed on to Pittsfield. Here I made the acquaintance of Mr. Osborn, a talented draftsman, secured his services, took a large club, obtained a likeness of Mr. Jason Clapp, the venerable proprietor, and resumed my journey. A large club was formed in the shop of Mr. Smith, at Springfield; also, one at Mr. Clark's, and other small ones.

At Mr. Hart's, in Hartford, the workmen formed a club of ten, and other names were taken in the smaller factories.

The scenery on the entire route from Bridgeport to this place is grand and beautiful beyond description. Clear, rapid and beautiful rivers, evergreen hills and lofty mountains, overhanging cliffs and rocky chasms, sporting rivulets and smiling valleys—everything that is grand to behold or sublime to contemplate spreads out before the eye, as if to inspire the "sons of New England" with that energy of thought and strength of purpose which can alone compensate for the lack of a more genial latitude and a more generous soil. T.

The Home Circle.

For the New York Coach-maker's Magazine.

A SIMPLE LESSON FROM NATURE.

BY MISS LAURA GROSVENOR.

EARLY this morning I made a bouquet,
That its fragrance might cheer me this sultry day,
And win my thoughts from the *clouds* away
To the *beautiful* things of life.

I culled the fairest and sweetest flowers
Of all that grow in our garden bowers,
(They *all* grow sweet in this garden of ours,)
So sweet there is ever a strife,

'Twixt the humming-birds and the honey bees,
The butterflies gay and the sighing breeze;
For each and all lay claim to these,
And disallow *my* right.

But fragrant as these flowers appear,
A sweeter perfume is floating near—
'Tis that of a rose not gathered here,
And its petals are not bright.

I gathered it yesterday where it lay
In the burning sand 'neath the sun's bright ray,
Slowly breathing its life away—
All withering and white.

Some careless hand had flung it down
In a crowded street of the busy town,
Where thronging footsteps go up and down,
From morning until night.

I brought it home, and gently laid
Its moistened leaves in the cooling shade.—
Return most grateful thou hast made,
O, bruised and withered flower!

Besides the incense thou hast brought,
With Eden odors richly fraught,
Thou hast to me a lesson taught,
Which shall not lose its power.

I will *ever* walk with an open eye
To the beautiful things *in my path which lie*,
Nor even a faded flower pass by,
If but its breath be sweet.

Let those who from their pathway turn,
In search of bliss, this lesson learn—
Seek higher joys, but never spurn
Flowers springing at their feet.

TERRE HAUTE, IND., July, 1858.

For the New York Coach-maker's Magazine.

CHARLES ARCHIBALD HENDERSON;

OR,

THE SUCCESSFUL INVENTOR.

(*Continued from page* 28.)

CHAPTER II.

"How beautiful she looked! her conscious heart
Glowed in her cheek, and yet she felt no wrong;
Oh, Love! how perfect is thy mystic art,
Strengthening the weak and trampling on the strong."
BYRON.

SUMMER silently withdrew before autumn, autumn before winter, spring danced over the land and departed, and summer was again abroad in its drapery of gold and green, with its sunny skies, sleeping streams, and all its glorious wealth of beauty. Yes, the year had circled round. There was now another mystery in the village, of a different nature, it is true, but quite as engrossing, and, for a time, quite as impenetrable. It began to be wondered everywhere who the "kind invisible" was who invariably came to fetch Nellie Leaf home from the sewing society, singing-school, and lectures in the evenings. Little Nellie—but I have not described her, nor will I. I have nothing to say about the long, soft lashes that fringed her violet eyes, of her apple-blossom complexion, nor the serene beauty that slept in the white arch of her forehead. I can tell you of something better. I can tell you of the charm of neatness that she bore ever about with her, the sunny cheerfulness of good temper, the witchery of modesty, the fascination of unselfishness, and, best of all, of the living warmth that radiated from one of the tenderest little hearts that ever beat, throwing its genial influence over all that surrounded her, like sunrise over summer. Hers was the inner beauty of the soul—that imperishable beauty that fadeth not away. No one who saw its expression ever thought of stopping to look at the features. Somehow the term lovely had got to be considered peculiarly appropriate to her, and she was known as familiarly in the village by that name as any other. Little Nellie being the general favorite, then was it any wonder that the whole village should be on the *qui vive* to know who "the person"—that lucky common gender—was, who always seemed to prefer waiting for her outside, intent only on his kind mission, notwithstanding the repeated invitations to bring him in, accompanied by sundry hints as to the propriety of so much exposure to the damp night air. Demure little Nell, with an inconsiderateness quite unpardonable, never seemed to think about it at all, so, of course, it was of no sort of consequence to the rest. None whatever; only it might seem rather uncivil; but they did not care. It was astonishing to see how quickly Nellie could put on her things when told that "the person" was come, and before even the others thought of getting ready she was gone.

But things could not always go on so in A.; trust the villagers for that. One night, by some mistake or other, at the breaking up of a little sociable, either because the dog in the yard would not tolerate a stranger there, or because "the help" was particularly stupid or particularly determined, "the person" was shown directly into the back parlor among the bonnets and shawls. Nellie rushed out instantly, perhaps to send him back again; but it was too late—every little damsel in A. was at her heels, as much from mischief, perhaps, as curiosity, and there, in the furthest corner of the room, lo and behold—the stranger! Poor little Nell, how she blushed, and how pretty she looked in her confusion. What a very great hurry she was in, and how she trembled when one of the girls gave her a pin for her shawl, and kindly advised her to stop and tie her bonnet.

Nellie, Nellie, the murder's out now! Before the sun set next evening, some half-dozen of the matrons of A. had been closeted with her mother, ominously shaking their heads, and predicting, unless their advice was attended to, a long regretful future for mother and daughter. The future! Dim, shadowy, dreamland! Who upon earth knows aught of that, save its one inevitable, ever-approaching termination?

Nellie and the stranger! Was it possible? A poor, suspected, unknown adventurer. Culpable Mrs. Leaf, what could she have been about? Let us first see what the stranger has been about. In order to do so we must retrace our steps. Very blamelessly he lived, very steadily he worked, very quietly he moved about in that attic all day long while the summer lasted, busier with his soul-absorbing machine than any little swallow scratching away under the eaves outside. He began to look very pale with the close confinement, it was so warm up in that attic. His cheeks grew thin, his hands attenuated. He began to look weary, sometimes almost exhausted, and it was noticed now that he made overtures to the little children of the village, whenever opportunity offered. Was it weariness or loneliness, or both, that made his eyes grow melancholy in their deep tenderness? What a great tenderness came over them as he gathered the little sunny-haired infant of the landlady to his bosom. How fondly he stroked the little head and kissed the small waxen fingers as they wandered over his brown face. How softly he laid her to rest in her little cradle after she had fallen asleep in his arms; for the little one, with the true instinct of childhood, crept often to him at nights to be rocked. Those who only saw a dark figure in shadow and a little white one against it, never dreamed of the deep painful memories awakened and surging silently in that aching breast. He alone saw the panorama of the past, unfolded so often for him by those baby fingers. He alone knew of a once happy home, far away now and desolate. Of a small, tenderly united family band, broken and scattered by death. He alone knew of a little being, dearer and fairer than this, who once loved no resting place so well. He alone could recall the vision of a little innocent, warm, soft nestling like this, closing its blue eyes for ever on his breast—a little loving sister—cold, coffined now, and mouldering away beside his mother, under the distant sod of England. Was it the slow torture of "hope deferred" or the yearning for sympathy that made the flesh waste—the life pulse beat low? Meantime, autumn came; magnificent autumn! with its varied and beautiful tints—green, golden, brown and crimson, grouped and blended by the Divine Artist beyond all power of

description—more magnificent in the extensive forests of our land, spread out in all its glorious beauty, than the stranger had ever imagined. He looked longingly out of his little window sometimes during the day, and sighed, as if it would be a relief to be abroad; then turned away, and bent resolutely to work again, toiling patiently on till the daylight faded; then he went forth, walking long and late in the cool still moonlight, little dreaming of the malaria in the damp night air. Indian summer, with its hazy atmosphere, its subdued and fading glory, found him stretched on a sick bed, prostrated by fever. There against the wall stood the curiously-wrought machine unfinished! A wonderful machine—curious, inexplicable—but beautifully perfect in detail, evincing great skill, great power, exquisite workmanship. There was the result of so much toil and self-sacrifice; but where was the master-spirit? Down!—there lay the clay tenement desolate, the tenant was a wanderer. The machine that had been so cherished, so carefully guarded from curiosity, was well inspected now. But what did it disclose? Save the patience, perseverance, skill, and talent of its artisan, nothing. Great was the cogitating in the village about that machine; many the queries, concluding always with "Will he ever finish it I wonder?" Alas! no.

The stranger was unconscious during most of that illness; but one time in his delirium, when a placid, mild-featured lady, with streaks of silver gleaming in the golden brown of her hair, bent over him in pitying tenderness, he said, "Mother, dear mother! I have been so lonely without you! Lay your hand on my forehead, mother, it feels cool and my brain is on fire. Don't despair, mother, never give up. It will succeed yet. You shall never know want and privation then. Trust me well. My work is approved of God. His spirit is with me, to will and to do in the cause of humanity. My work will save labor, it will save life. Beautiful, blessed invention! Be hopeful, mother, and patient, only be patient—meantime, we must work and wait." At another time he seemed troubled. Spoke as if he had been deceived; bemoaned some great loss; grieved over the unworthiness of some trusted friend or companion. Then he mourned, as if by the bedside of his dying mother. Tears dropped from the mild eyes watching him as he murmured something about the sundering of the last tie that bound him to earth, and he was silent too, as if overwhelmed. But the poor wandering mind could not fix; again he commenced. This time he was on the ocean, in pursuit of some one—some one that could never be found. Now he was among strangers, "a stranger in a strange land," a wanderer in the dark, homeless, friendless, desolate. Then he spoke tenderly, caressingly, in the softest tones, to some little sister—his "darling little Mary"—and in a sort of temporary calm he slept, only to awaken to more violent delirium. Still the fever raged; stronger and stronger it became, while the poor, over-taxed body dwindled down to utter helplessness. It was blistered, reduced, the life-giving current let out by cup and lancet. But the fever could not be broken, it had not yet reached its crisis. Was it the prayers of the Good Samaritan, who knelt so often at his lonely bedside to implore help of the Great Physician, or the unconquerable vitality in that young, vigorous frame, that caused it to subside suddenly in one night, as if by magic? Who shall say? His days on earth were not yet numbered, his house had to be set in order: his work was not yet done.

That terrible sickness brought and left with him a friend. Henceforth a friend's house would be open to him, a friend's sympathy never denied him. It was the Widow Leaf, whose kind motherly heart sent her to minister to the stranger's necessities in his hour of extremity, and it was to her house that he gratefully wended his way as soon as ever he was able. The cool weather came with its exhilarating influence, and he was soon well and at work again. His old routine was soon resumed, with this single exception, he went out often to spend the evenings, and staid long, no one knew where.

How it happened that Nellie and he learned to love each other, I cannot say. I only know that he soon loved to go to the Widow Leaf's cottage as much as its inmates liked to have him come. True, they had sympathy and he needed it. They had a pleasant home always open to him, and he was solitary. He, in turn, had a great, earnest, truthful nature, and they appreciated it. He confided in them, they trusted him. They suited him, he them; in a word, they were congenial. At first, in his weakness, he only sat and enjoyed the mother's low friendly conversation in silence, acknowledging every little delicate attention when necessary, his deep observant eyes meantime following Nellie's little white figure flitting about, obeying cheerfully and with alacrity the mother's behest to make him comfortable, with earnest attention. When she played for him at first, his feeble frame shook as with an ague, and leaning his elbow on the arm of his chair and his head on his hand, he closed and covered his eyes; but afterwards his full harmonious voice was often thrown in to support and steady hers, trembling from diffidence. When he grew stronger he read to them, talked with them, unconsciously developing the treasures of a well stored mind, till they loved to listen. So their evenings passed almost without interruption, for Mrs. Leaf never went out and rarely received visitors at night. Time wore on, and now as Henderson's fine eyes followed the little white figure ever and everywhere, a great tenderness came over them, for Nellie had learned to look to those eyes for approval or in deprecation, and they always beamed back lovingly in return. How it happened that he whispered to her one night of his heart's devotion, I cannot tell, nor could he, for he had determined he would not let anything escape him till after he had succeeded in the world; but it happened very well after all, for now a little white dove, whom he meant to shelter and protect with his life, had folded its wings and nestled down close to his heart. Ah! he could work now in his lonely attic, as he had never worked before. Early and late and vigorously he worked during the summer. What followed?—was he succeeding? The people of the inn thought he was; for it was observed when he descended to meals that the intent, wistful look that generally characterized his face was now gradually yielding to a cheerful, almost buoyant expression. That his pre-occupied, often introverted spirit, was now coming out, expanding into a genial friendly mood towards all, and that there was a glad hopeful light shining in his eye sometimes as he sat there silent in their midst, that they could not comprehend. Alas, how few ever do. Only the great, the faithful-hearted. Those who have learned to make their lives sublime by self-renunciation, by merging self and selfish interests into the great sea of common brotherhood. Only those who learn to live so as to leave some valuable heirloom behind them for posterity—whom succeeding generations rise up and call blessed. The sterling band that press on with steady step and dauntless heart over the mountain track of life, bearing aloft the ban-

nered watchword, "Our Common Brotherhood," marching to this soul-reaching refrain in solemn unison :

"Own no rank but God's own spirit,
Wisdom rule and worth inherit.
Live for all and all employ,
Share with all and all enjoy,
God alike to all has given
Heaven as earth and earth as Heaven."

How grand it rolls over the listening generations.

[To be concluded in our next.]

Pen Illustrations of the Drafts.

CRANE-NECK PHÆTON.

Illustrated on Plate VIII.

OUR special artist furnishes us this month with a very fine drawing of a crane-neck phæton, to which the engraver has done ample justice. To some, the *perspective* treatment of the fifth wheel arrangements may appear a distortion, yet it is a style of delineation very frequently adopted, and is rendered necessary where it is intended to represent the curved horn-bars, etc. We think the construction of the springs in this phæton is well calculated to make the vehicle easy riding, and the *tout ensemble* pleasing and graceful. We, in this locality, do not fancy the wooden dash ; but, judging from circumstances, we are led to conclude that they are fashionable at the South and West. This style of carriage should be trimmed with leather. The carriage part looks lighter when painted a cream color and striped with black ; but, of course, the maker will use his own judgment in this matter.

CUT-UNDER BUGGY.

Illustrated on Plate IX.

This is another variation in the buggy species, figured on Plate I. of this volume. Our friends the Phœnix Carriage Co., at Stamford, Conn., and others in Newark, N. J., from whence our draft comes, are making them. It would appear almost like a reflection upon the mechanical ingenuity of our readers to even presume to tell them *how* to form the body, to paint or to trim a job so common as a buggy.

TROTTING BUGGY.

Illustrated on Plate IX.

We give this figure, as much as for any other purpose, to show to posterity the fashions of the past. The only feature having the appearance of novelty is comprised in the oval-shaped stitching displayed on the side of the boot, combined with the old and familiar centre piece. There are some "of the boys" who still prefer this to the more modern shaped body in the June No., whose taste we are not in a humor to entirely condemn, although, as regards the mode of hanging up—on wooden side-springs—we are inclined to believe that "the boy" who follows must have more respect for his horse than a desire to promote his own comfort in easy riding. However, as a certain old lady is reported to have once said, "there is no accounting for tastes."

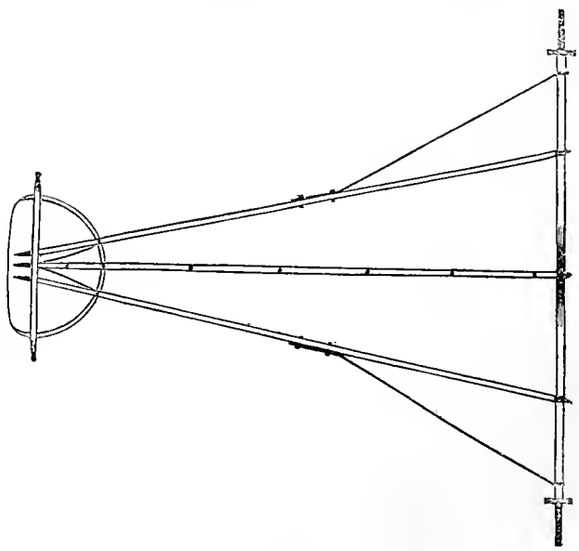
THE FRENCH CALECHE.

Illustrated on Plate X.

We present the reader this month with this very fine draft, which we have just received from the hands of a gentleman recently from Europe. This description of vehicle may be considered as the most convenient invented, as applicable to both winter and summer weather. The draft tells its own story so well that we do not feel called upon to enter into any elaborate explanation of its details, and more particularly, since every intelligent coach-maker needs only a correct side draft to direct him in *his* efforts. The wing, or duster over the front wheel, is a fixture which is now generally discarded in America.

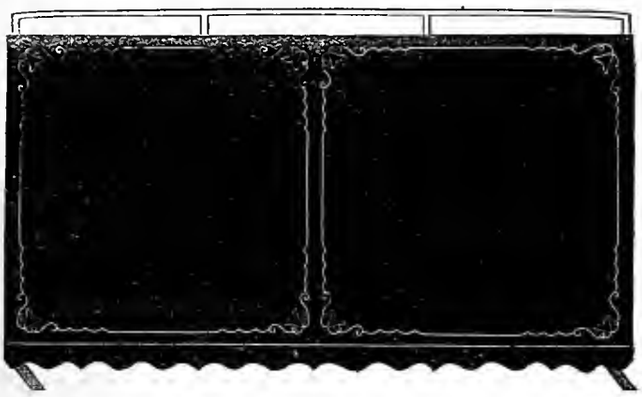
Sparks from the Anvil.

A THREE-PERCH CARRIAGE-PART.



ABOVE we illustrate "the march of improvement" by giving a buggy carriage-part with three perches. The utility of having so many is questionable in our mind, indeed, we are not certain but that the old mode of construction with a single perch is yet the best for all practical purposes. The double perch is now universally used in New York for all city buggies. The three-perch has been much employed by one firm here, in an order for a house in the South, where it appears to have been received with much favor. Our opinion is that they will not stand on uneven roads, and are only practical on very level ones. We give it more as a picture of the times, than one of improvement, and because we intend our Magazine shall be a record of history as well as one of usefulness.

BUGGY DASH—THE NEW YORK FASHION.



We gave in our last number the most fashionable New York style of Dash for an open-front buggy. The one here given is that used on all the square-body light work made in this city, and frequently applied to the no-top open-front buggies; likewise it commends itself chiefly as being light, especially when, as now, every ounce of iron taken away makes the article the more saleable.

A Lake of Borax.—A company at Napa, in California, have purchased and are preparing to manufacture borax on a large scale, and to this end have supplied themselves with boilers and other necessary apparatus. In a well sunk in the midst of a lake, and surrounded with a coffer dam, a few feet below the surface is a spring of intense saltness, constantly flowing. In the waters of the surrounding lake is found, among other substances in solution, iodine in large quantities. The Clear Lake region is said to be one vast laboratory on a gigantic scale, of which the crude productions are borax, iodine, sulphur, salt and soda.

Tough Steel.—P. G. Gardiner, of N. Y. city, has patented in England an invention for producing steel of a very tough and soft quality. The common steel in use is melted in crucibles in the common way, after which it is poured into heated moulds, to which the metal in a melted state will not adhere, where it is kept at a high heat for six hours. Taken from the fire and allowed to cool down to a cherry-red heat, it is then plunged into oil of 700° Fahrenheit, at which temperature it is kept for seven hours longer. After having slowly cooled down it is found to have become very soft and malleable, and, we should think, might supply a good substitute for our iron tires on light wagons.

How the Times affect the Manners.—The following illustration is significant:

A Cabman in 1854.—"Call yourself a genelman? If you can't afford to ride, vy don't you valk?"

A Cabman in 1857.—"The fare is very low, sir; but still, as every sixpence is an object, I am extremely obliged to you. Be careful of the step, sir."

Paint Room.

A FEW SIMPLE INSTRUCTIONS IN PAINTING A BUGGY.

PAINTING THE BODY.

In our "Paint Room" for July, on page 30, we finished with our instructions in painting a Buggy carriage-part. Our business now is, to go on with the body.

Supposing that with the carriage-part we have brought along the body also, as far as and according to the instructions embraced in sections 1, 2, 3 and 4, we next prepare our "rough stuff," or filling-up, composed of the following ingredients: say, 1 part white lead, and 3 parts yellow ochre, and thinned with 1 part boiled oil, 1 part varnish and 2 parts japan, finishing with spirits of turpentine, sufficient to make it of the consistency of cream. With this "*stuff*" give the panels four coats of "filling" in succession, allowing each coat at least forty-eight hours to dry, before the next is put on. After the fourth coat is on, give the job from six to ten days, if possible, that the paint may become hard—the harder the better—after which rub these "rough" coats down with lump pumice-stone until you get a sufficiently smooth panel for the next coat.

Sometimes, in rubbing down, in consequence of the porosity of the putty, caused by too free a use of japan, which makes it dry very quickly, and without sufficient oil, the water used in rubbing often causes the wood to swell around the puttyings, forcing the putty out; therefore it becomes necessary to let the job stand until it becomes perfectly dry, after which apply another coat of lead, ground very fine in a paint-mill. After this becomes dry, rub it down again very closely with very fine, or, perhaps, with what is better, worn out sand-paper, and then examine, and, if necessary, putty up any place that may have been neglected in the former puttying, together with those places affected by the swellings of the wood before spoken of. When these last puttyings have hardened by standing, the work should again be gone over with pumice-stone, so as to give a perfectly level surface for the 10th or preparation coat. We will suppose, in this instance, our "color" is to be ultramarine blue. Mix up together white lead and Chinese blue to a proper color (of course regulate this color as to lightness with the white lead) with 3 parts japan and 1 part oil—some persons use 1 part varnish, which makes it cover better, but which renders it the more liable to crack—put on and rub down with moss. Some, instead of moss, rub this last coat down with a linen rag.

11. Color; if black, mix it with 1 part oil and 3 parts japan. If it be some transparent color, thin it with sugar of lead and *raw* linseed oil, for the reasons stated in section 6, on page 30.

12. Color and varnish—when dry, rub it down with ground pumice-stone with a woolen rag.

13. Color and varnish—rubbed down as above.

14. Another coat of color and varnish, being the 3d, as above.

15. A coat of pure American varnish, rubbed down as at section 12.

16. Stripe and ornament the side panels, if desired.

17. Give the work a final coat of the best English varnish.

We have now given the painter instructions in the mode of painting a first-class job, to which we must in closing add, that although we have, perhaps, laid ourselves open to criticism from some, yet we believe, in the main, our instructions will be found correct, if followed by an experienced workman. Of course a cheaper mode may be adopted; but then the work must prove inferior. We invite discussion upon this subject, from any painters disposed to enter the lists.

For the New York Coach-Maker's Magazine.

COLORING—LAKES.

BY JAS. SCOTT.

MANY painters are but too apt to pay far more attention to perfecting themselves in the practice of varnishing than to anything else belonging to their art; thus, neglecting to improve their skill in other matters of equal importance to him who would be considered a finished workman. As the result of this omission, we often see jobs which are splendidly varnished but very poorly colored. The casual observer might not notice this defect, but, depend upon it, the man of taste will perceive at a glance the glaring difference between a well *painted* carriage and one only well varnished. It is, after all, an easy matter to learn to color properly, and requires but little practice, compared with other parts of the trade. Why, then, will painters neglect it? It is surely of sufficient importance to merit at least a share of attention.

The colors (black excepted) most commonly used on the panels of work, are lake, blue or purple, and green. Of these, lake is, perhaps, the most difficult for the painter to use successfully, as it is also the handsomest when finished. Some eight or ten years ago, the art of using lake was regarded by the uninitiated as a secret of which only a few possessed any knowledge, and those few were by no means anxious to remove this absurd belief; indeed, to do so would be to strip them of a reputation, which they enjoyed among their fellow-craftsmen, for superior skill in coloring, when in fact there was no particular display of genius in the case. The greatest trouble among those who knew nothing of the process, was to prevent it from "streaking," and there are at the present day many painters—good workmen, too—who are in the same predicament. They have no fixed rule—no true theory for mixing and applying the color, hence, the frequency of streaked panels on jobs otherwise well finished.

Perhaps the earliest method of using lake was to grind it in varnish and put it on with a flat varnish brush. This mode is well enough in practice, but there is one grave objection to it, viz.: the certainty that it will crack in nearly every instance. For the benefit of those who find any difficulty in working lake, I will give a few hints, which may perchance prove valuable, as they are the result of experiment and close observation.

In mixing colors, carriage painters generally use raw oil, turpentine and japan-dryer; all well enough for common colors, but, for lake, this system is wrong. In the first place, the color being a very delicate one, brown japan detracts much from its brilliancy; secondly, this way of mixing renders it "sticky," and hard to "spread." It is true that sufficient turpentine may be introduced to make it work easy, but therein lies the great error—the cause of its "streaking." Patent dryer, gold-size, &c., are but little better than japan, and should not, therefore, be used with lake. Pulverize your color thoroughly, then mix with *boiled-oil*—clear as you can get it—until it is thin enough to grind, then add sufficient sugar-of-lead to dry it, a small quantity will do; by one experiment you can learn to graduate the portion according to the amount of color; use enough to dry it in twelve or fifteen hours. When ground, thin into working condition with turpentine, before putting it on the work, try it on the wall where you rub out your brush, or on any painted surface. Watch it for ten minutes, and, if it still retains a bright gloss, add more turpentine, for depend upon it, it is not thin enough, but if it settles into a subdued metallic-looking appearance it is *right;* if, however, there should be reddish-looking streaks running through it, put in more oil, until it assumes the *subdued* look described above. It is best, I think, to put it on a "ground" of dead black, not so dead, however, that it will look like lead color. The objection to brown for a "ground" is, that unless it is very nearly the same shade as the lake, it will injure the rich tint of the latter, if five or six coats are not applied: three coats will cover on a *black* ground and still retain all its original beauty.

Now for the brush! not a bristle one by any means. No, sir! The proper tool for coloring bodies is a flat camel-hair brush, hair about an inch and a half long, bound in tin with a cedar handle. They can be found of all widths, from one inch to four; so you can have tools adapted to the size of your panels—tools that will lay your color without leaving a single brush-mark. It is necessary to thin your color more than when using bristles, but it will, nevertheless, cover better, owing to the softness of the hair. Perhaps some of you will ask how "color-and-varnish" can be put on with a tool like that; in answer, I would say that I most earnestly protest against color mixed with varnish being used at all; it is altogether unnecessary and will inevitably *crack*. Put on a good body of color, and then a coat of clear varnish, thinned with turpentine; it will rub better, and produce a better surface than the old-fashioned mixture.

In painting lake, always use the lightest varnish (I mean in color) you can procure. If, after mixing according to the above directions, your color is still too thick to use with the camel-hair tool, add oil and turpentine in such quantities as will still preserve the *test* which I have given—the *subdued* appearance, not *dead*, remember!

The same directions and remarks will also apply to ultra-marine blue, and rose-pink.

Speaking of painting lake reminds me of an anecdote which may not be out of place in this connection, so I will relate it. The incident occurred about ten years ago, a period when comparatively few painters knew how to use lake successfully.

A State fair, at which many carriages were exhibited, had drawn carriage-makers from all parts of the State to the

city in which it was held; among the number was Tom Jones, a good fellow and a first-rate painter. Tom, while on the Fair grounds, accidentally got acquainted with a "brother-chip," named Smith, who proved to be a very gassy man, and a thorough egotist. Jones, soon discovering this, began to regard him with disgust, and would have quitted his company if it had been possible. It was no easy task; for his new acquaintance stuck to him like a bacchanalian Dutchman to a keg of "lager."

"Have you seen that large crane-neck coach from our shop?" queried Smith eagerly, as Jones, pleading an engagement, turned to leave him.

"Guess not! where is it?"

"Just over here. Astonishing! you must see that, sure! Nicest job on the ground, sir; fact, sure as you live, so come along! It's painted *lake*," he continued as they started, "and 'taint everybody that knows how to use that kind of stuff! Do you use it up your way?"

"Sometimes, but we don't pretend to be first-rate at it!" answered Tom.

"Suppose not! There aint many that are; but *I'll* show you a job that's about right, see if I don't! Found out how to do it myself, no one ever told me a thing about it, sir—just picked it up out of my own head, I did *sure!* There! sir. That's it! Aint it pretty! Just stand off about here, and you can see it to good advantage!"

By this time they had approached the carriage in question, and the gassy man had taken up a position about ten feet from it, holding Jones by the arm, while he pointed at the job with the air of an artist showing his master-piece.

"It looks fine, that's a fact; let's get up closer to it!" said Tom, trying to disengage his arm from the grasp of the other.

"Oh, no! don't go a step, you can see it far better right here—indeed you can, sir; fact, sir. If you go too close, the lake will look like a common black. This is the spot to look at it from!"

But Tom was not to be convinced. He smelt a rat; so, jerking loose, he went up and examined the panels closely. The job was well varnished, but the lake was awfully *streaked;* in fact, it looked as if it had been painted on a red ground, and then "gone over" with a grainer's comb. A wicked smile danced in his eyes as he made this discovery, then turning to his companion, who looked red and rather chop-fallen, he said quietly:

"Yes! it *would* be a tolerable job if it wasn't for those red streaks!"

"Red streaks!" echoed Smith, deprecatingly. Then suddenly brightening up, he explained, triumphantly: "*Red streaks!* Yes, of course it is streaked! *That's where I get them! It aint every painter that can do that, let me tell you!*"

Tom *caved* in, and took the first opportunity which offered to give Smith the slip. The last time I saw him, I inquired if he had learned how to put in the red streaks yet. With a look of mock humility he replied:

"No! I have learned everything else about the trade; but when it comes to putting in the *streaks*, I aint around!"

ORIGINAL ORNAMENTAL DESIGNS.

Illustrated on Plate XI.

The ornamental plate presented to our patrons with this number has been designed and drawn expressly for this Magazine by Mr. Charles Ferdinand, heraldic and ornamental painter, of this city. We add a few directions as to coloring the figures.

No. 1. The figure dark and light shade; collar of the hound gilded; scroll work of the shield should be laid on a metallic ground; bars shaded red and white; stars gilded; tints at the side of the open space blue. The figure is generally allowed to stand on the ground color, but may be finished with a landscape background.

No. 2. The scroll work may either be laid on a metallic ground or painted in relief; if on the former, shaded with asphaltum and raw sienna, as usual; water scene in dark blue, light and yellow tinge, and centre figure as above.

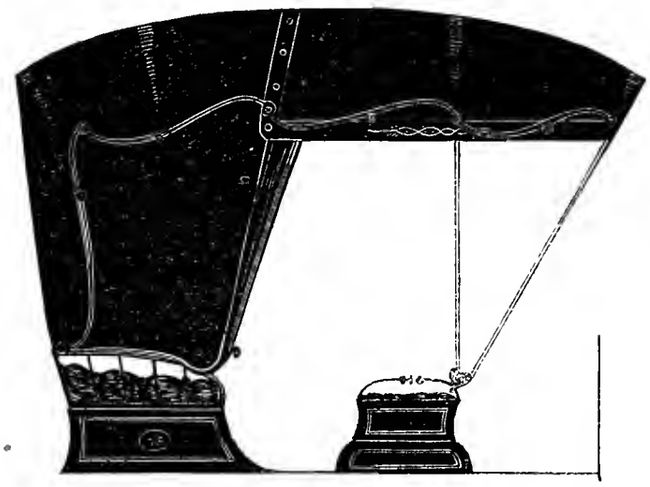
No. 3. Dolphins, net-work, and shield, all laid on a gold ground; dolphins shaded with ultramarine, which will give them a proper tinge of green; scales and outlines in black; the light lines of the net-work gilded, only so as to show the ground color through between the lines; the harp should be either the color of rose-wood or mahogany, or in white or gold; scroll work shaded as above.

No. 4. Shaded and laid as No. 2, above.

Trimming Room.

CHANGEABLE TOPS FOR SHIFTING-SEAT WAGONS.

D. DALZELL, SOUTH EGREMONT, MASS., CONTRIBUTOR.



EXTENSION CHANGEABLE TOP.—FIG. 1.

Fig. 1 represents the front attachment on a jump-seat wagon. The back joint extends from the prop iron up to a low point on the back bow. The horizontal joint passes from the back to the front middle bow. The joint that passes from the third to the front bow is made *very light*, and placed in the inside; the joint of this operates downward. When the front extension is put on, those inside joints are slacked, and the front bow is lashed back by means of a web running through a plated loop on the front bow, with a ring on the front end to draw back and hitch

to a "line-hook," set on the back middle bow. By throwing this bow back, it is raised to the height of the middle bow, and ample space is given to get in and out at the side. The extension is then knobbed on to the back middle bow, and the joint attached to the back one by means of a hook formed on the back end, which drops into an eye formed for that purpose, on the front end of the back iron. The bows are then set in their place in the handles of the front seat, and, the joints being strained, the top is complete.

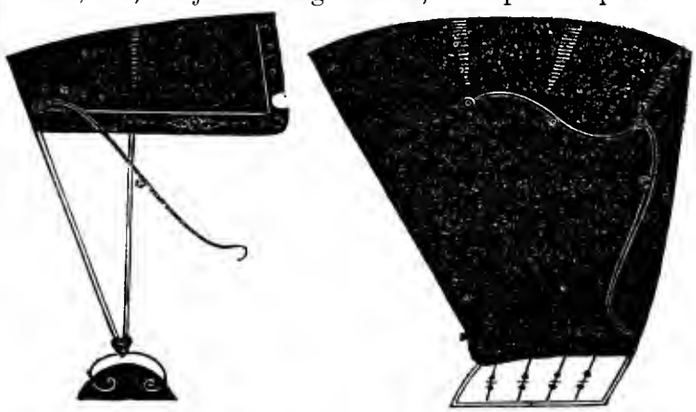


Fig. 3. Fig. 2.

THE CHANGEABLE TOP, TAKEN APART.

Fig. 2 shows the appearance of the top when the vehicle is used as a single seat buggy; the joint is unhooked, and the front unknobbed, and, the inside joints being strained, the top spreads, having the appearance of an ordinary top.

Fig. 3 shows the detached part, but finished with a single joint, and attached to an old fashioned seat handle. The end of the joint, as it hangs slantwise, shows the form of the hook at the back end. The back edge of this piece is pasted out, and lining and all bound together as far down as the scollop left for the prop-irons; the outside, which has been properly fitted on and finished ready to go on, is then turned back, and the tops of the two front bows covered with cloth which corresponds with the lining—nailing it on the top; the lining is then drawn over the top of the bows, and tacked down with strips of leather or listing, to prevent the tack-heads from tearing through; the vallance is then applied as usual, and the leather drawn forward to its place. A knob should take the top on a line with the seam, and in cutting the top a lip of leather should be left on each piece for that purpose; the top is then seamed up close to the lip, so that when it is turned they will lay past each other, and stitch together with the knob-piece. The front should, of course, be strained with canvas, between the lining and the outside.

WHITE AND BLACK STITCHED CLOTH FACINGS.

Since the stitching machine has commenced to work such a complete revolution in trade, the economy and neatness of stitched cloth facings are being appreciated more than ever before. On light work, trimmed with blue fabrics, or snuff-colored, a light scroll, machine-stitched with white silk, looks *well*, especially if the seat is welted with bow leather.

On heavy work, finished with dark rich snuff-colored goods, a heavy cord, drawn endwise about one-fourth of the way from the edge, so as to raise the cloth on each edge of the facing, stitched with a simple line of plain black laid close to each side of the cords, makes a neat, rich style of finish which is *highly becoming*. Some workmen welt with a strip of leather cut down on each edge—others with cotton wicking. Hand-holders, made of cloth instead of lace, and welted and stitched in this manner, make a suitable accompaniment for the cloth lace facings.

Style of trimming in New York about the same as previously reported. White figures for light work—plain black for heavy styles.—Ed.

ANYTHING FOR A PATENT.

To illustrate the greediness with which patents are sought, and to show the tricks that are resorted to in order to throw dust into the eyes of the public, we will relate a little incident that fell under our observation.

A western patent-vender, who had caught a luminous idea from the Winans' Patent, and certain other relics of former skill, concluded to complete his cabinet of curiosities, and add a new charm to his cognomen, by bringing out a patent side-spring buggy. The model was soon completed, and sent, with copious specifications, to the Patent Office, but as speedily returned, "*refused*," for lack of "substantial novelty!" This was a stumper, but he soon rallied. Who ever saw such a thing as a small block of wood clamped between the back end of the spring and the (swedged iron) axle upon which it rests? No one, of course; besides, it would be a decided benefit to the job, as the nut could be tightened up better than when iron rests upon iron. A second specification was made out, and the result proved that the little block *thus* inserted, constituted a "substantial novelty," and the said "*patent side-spring buggy*" is now before the public; an arrangement has, or can be made to manufacture said springs, and the public are, in the most frank manner, invited to test them for one year, and should they give satisfaction (?) they can, of course, "walk up to the captain's office and settle."

We *insist* that in such a case the inventor needs to be a man of genius, as mere *mechanical talent* "is nowhere!"

The Quaker and the Livery Stable-keeper.—The Buffalo *Express* tells a story of a Quaker who was charged the exorbitant sum of seventeen dollars for a horse and buggy for a short drive, and, upon being presented with the bill, simply remarked: "Thou mistakest me, friend; I do not wish to purchase thy vehicle, but only to hire it."

The New York Coach-maker's Magazine.

AUGUST 1, 1858.

E. M. STRATTON & M. G. TOUSLEY, Editors.

TO READERS AND CORRESPONDENTS.

"R. M., of Mis."—The most certain way to get our magazine is to enclose the subscription price in a letter, addressed, "E. M. Stratton, 106 Elizabeth street, New York city," and remember especially, that we have no connection with any other office. We have reason to suspect that letters, intended for us, *have carelessly* found their way into "the enemy's camp."

"J. S., N. Y."—We have not heretofore thought it advisable to furnish the dealers in cheap publications with our work, as, not being stereotyped, we are anxious to preserve our sets unbroken. We, however, contemplate doing so in a few localities, should dealers come under obligations to take a certain number of volumes complete.

"E. T. T., of Conn."—Where a shop possesses interest as to location and architecture, we propose to illustrate it in our columns—such illustration and the necessary description being furnished to us by the owner free—without charge. Those wishing to avail themselves of this offer will please confer with us by letter.

"G. N. of Va.," who inquires as to "who make the *best* axles," is referred to our advertising pages—we are the last to refer you to any "outsider." We *honestly* consider the interest of our advertisers and our own as identical.

"C. F. of Mass."—We have not seen the side spring alluded to, but one who has, says it "is a desperate humbug."

"J. C. N. of Canada W."—We are gratified to find that our humble efforts have pleased you, and hope that by unremitting exertion we shall continue to deserve your favor. We are pleased with your design for an ornament and intend to give it hereafter—say in our next quarterly plate. Please instruct as to coloring. Try and get us up that "something for our next."

FASHION AND DESIGN.

There are two equally ruinous extremes into which the publishers of mechanical sheets may run. The first is that "masterly inactivity" which renders its reading columns dull or trashy, and its illustrations ill assorted; the second, that fastness of purpose which would thrust designs upon patrons—either good or bad—faster than they can digest or apply them. In a publication of this character, either of these extremes is doubly ruinous: first, because coach-makers are generally men of cultivated taste, and second, because styles are less transient in first-class shops than in such as from lack of balance indulge more freely in experimenting; and designs, once given and allowed to pass into forgetfulness, are counted among the things that were, and consequently out of date; when, perhaps, the only fault lies in its being injudiciously crowded upon the craft among a flood of designs equally good. So the reader will discover that there is such a thing as having too much of even a good thing.

As we remaaked, a good shop cannot afford to change styles too often, as it involves too much experimenting to allow them either to make money, or to systematize and perfect any one thing.

Sensible coach-makers care less for the amount than for the quality of patterns given in a work like this. Suppose that we were to give from four to six designs in each month's issue of this work, what coach factory could follow us through the labyrinth of shapes that would appear in its pages? And then, suppose that we were to run mad on the idea of originality, and, like a certain contemporary, fill our plates with every conceivable crook, when nothing but straight work was in use, lest we should chance to come down to sober reality, and draw something that somebody could make, and somebody might want. Yet what else could be expected of a work that made such large pretensions to being exclusively a journal of design, and that affected such sovereign contempt for fashion—as though a valuable and practical design was soiled by contact, and lowered in the scale by general use. One would suppose that those who are so nervous about the orthodoxy of their tailor could scarcely maintain themselves in so radical a position. Our position upon fashion is this: We have no desire to drag our patrons into the use of any one particular style, just because others use it, any more than we wish to set our own or our neighbor's ideal sketches above the dictations of experience and the sanction of common use. We have taken the medium course. By giving French designs we presuppose that there is talent enough outside of the Magazine office to Americanize and apply them. By reporting fashions faithfully, we give an idea of the taste and generally received styles of the living present, and still leave sensible men—who do not fear being enslaved by "the tyrant"—to do and think as they please about adopting them. But, still, we are not so old-fogyish as to suppose that the ancient only is honorable. We propose to sprinkle judicions with original sketching, but shall not waste material by over-doing it, or allow it to drive us into that thicket of unique designs which are original only because no one was so great a fool as to father them before. We are convinced that the intelligent body of coach-makers prefer one new or improved design, well worked down, and rendered *practically reliable*, to a round dozen of the modestly (?) appropriated mongrels that "pioneer" their way into the notice of our friends; and we are satisfied that this will give our Magazine a more standard and satisfactory tone than any other course that can be adopted. It is a law of trade, that even good articles depreciate in value when the market is glutted.

AN AIRY (VISIONARY?) INVENTION.

A Cotemporary, in New York City, who is becoming somewhat notorious for *flighty* notions, says, in an editorial article, that "air springs for carriages and other uses—they may do for the 'other uses'—are now being constructed, by

employing water or other fluid, confined in flexible covers of water-proof fabric in inclosed metal chambers, wherein the air is confined in such a manner that the water keeps the air from coming into contact with the flexible covers, and also from coming near the openings where the air is introduced, and also from the joints of the chambers where the covers are fixed. By this means the air is inclosed on all sides, except when in contact with the water or other fluid, in a metallic chamber, in such a manner as to prevent leakage."

This *watery* description is a little *muddy* in the recital, yet is sufficiently *clear* to exhibit the entire absurdity of the thing. Two of the elements, then, are requisite in getting up this "latter-day" production. We would suggest a third (that of fire), for which *idea* we charge nothing, and then we think it would go—the metallic cover we mean—just as the boiler of that steamer which blew up the other day did. While we think of it, we would direct the attention of our ingenious friend, Mr. J. K. Fisher, of the steam-carriage on common roads, to this "air-and-water-spring." It would probably be a vast saving of expense as well as economy of space, since the boiler and springs could be used in combination.

We would further suggest these springs as being "eminently calculated" for use in the construction of the aerial-carriages that we hear so much about now-a-days, as, by an improved exhaust chamber and a double pressure condenser attached, the supply of water evaporized in this *boiler-spring* could be replaced from the vapor floating about in the upper regions, and thus save a vast deal of labor, by being its own water-feeder.

Seriously, we wish to inquire of this inventor, whoever he may be—for his name is not yet made public—how he expects his water-springs to operate in frosty weather? What advantages does he anticipate for them over the favorite elliptical steel springs? Does he expect the application of his water-confined-in-flexible-cover-metal-inclosed-springs to look more graceful and lighter, &c., than any now in use? If not, *cui bono?*

A LADY CONNOISSEUR OF THE NOBLE ART.

MRS. VIELE, formerly a New York belle, of no small celebrity as a wit, but now the wife of an army officer, has written a spicy, but not an elaborate work, which she calls "Following the Drum."

Her varied jottings bear less the character of a standard book than of a personal narrative, as it lacks that elaboration of thought and continuity of style with which profound authorship wearies the unsophisticated; but as living photographs, gilded with the sunlight of exuberant fancy, each paragraph hangs a new picture upon the wall, thus forming a galaxy not uninteresting to the general reader. But the technical manner in which this admirer of epaulets discourses, upon the various vehicles which fall under her notice, shows that she appreciates the "emblem of civilization" as a proper accompaniment in the world of art, for that more threatening background of a nation's glory, the strong arm and tented field. In speaking of her residence at Havana, she says:

"The *volante*, THE vehicle of this country, is at the door before six o'clock. To those who have ridden in them, a description would be superfluous; and to those who have not, it will be almost impossible. Its lazy motion, as it moves along, hardly disturbs the soft atmosphere.

"Our *volante*, hired by the day during our short stay, was the property of a Cuban nobleman, who had retired to his country seat among the mountains, and left it and his coachman in town to be hired by strangers He must probably have been 'hard up,' judging by this proceeding; but this is merely a natural surmise. It was 'got up' in most gorgeous style, and in the gaudy taste peculiar to Spanish-Americans. Its body, what we would call a tilbury on a large scale, the top shifting, the pole double the length of one of our ordinary vehicles, which consequently leaves quite a space between the body of the *volante* and the mules that draw it. These latter were fat, and beautifully groomed, and trapped in gold and crimson cloth—one of them being ridden *à la postillon* by the driver.

"The Cuban 'whips' are in themselves quite a study. A jacket, *à la Grecque*, of crimson cloth, embossed with gold, falling open and exhibiting a gayly trimmed vest, and linen edged with deep lace ruffles; tights and top boots, inlaid, and finished round the top with gold fringe, and a cord and tassel of the same. A beaver hat, with a broad gold band and cockade, complete their stylish outfit.

"These liveries are always gay, sometimes elegant, and at times bordering on the grotesque.

"A *volante*, with all its charms, would be as much out of place in a city of the United States as a trotting-wagon and pair of fast horses would be at the Plaza de Armas of Havana."

Speaking of her adventures on the Texan frontier, and of her entertainment in the family of a Spanish resident in Camargo, she continues:

"When dinner was announced, I was handed, with no little ceremony, by Don Jesu, into the dining-room, which opened on the garden in the rear, through a stone archway. Similar arches on either side opened, on the one hand, into a long, low kitchen, and on the other into the carriage-house, where stood the massive family coach, covered with brass mountings and armorial bearings, but which was seldom used, as their means could not supply the necessary horses and men. The coach, however, remained a relic of the departed glories of their line, and was preserved with almost religious care. It seems impossible to entirely eradicate the old Castilian pride of blood. In all the better class of houses, both here and in Havana, the room for the carriage is in close vicinity to other suites of apartments."

BILL JINGLE'S COACH AND LADIES' HOOPS.

IT is said that the ladies, in consequence of their hoop extensions, had attained such enormous proportions in 1707 as to have become a source of alarm to satirists and custom-house officers. Is it not written in a periodical of that

day, that "for the service of ladies wearing hoops, one William Jingle, coach-maker, has built a round chair, in the form of a lantern, six yards and a half in circumference, with a stool in the centre of it, the said vehicle being so contrived as to receive the passenger by opening in two in the middle, and closing mathematically when she is seated?" This Bill Jingle must have been an extraordinary great genius, and fitted for his times; for, besides the above *useful* invention, he invented another coach into which the *hooped ladies* of that day were admitted from the top. A "lady's woman" in one of these hooped petticoats was let down from a balcony, and drawn up again by pulleys, to the great satisfaction of her lady and all who be held her. If matters continue to take their course as they have heretofore done, we have no doubt but that the ingenuity of some modern Bill Jingle will be called into service to do for our wives and daughters the same thing which was done for our grandmothers in 1707; for we already perceive that the doors of our coaches are altogether too narrow for the votaries of hooped crinoline. While the banks are *contracting*, it is said that the ladies are *expanding* their skirts. As this latter insinuation is altogether ungallant and ungenerous, we are ready to believe it to be altogether untrue, and only uttered by some miserable old bachelor in a fit of despair.

A WORD ABOUT OUR DRAFTS, &c.

It will be observed that our engravers have again "let themselves out," in executing the plate illustrations for this No., all of which come fully up to those given in our first, and which received the universal commendation of the craft and the Press. The phæton is from Mr. Britton's pencil, as well as the cut-under buggy. We have endeavored to give the fashions, as far as these "hard times" have fostered such "shadows." To these we have added, according to our original plan, a plate of original and ornamental designs, which alone are worth a year's subscription.

Among the illustrations for the September number will be fine original designs for a hearse and a coach, by Mr. James Irving, of Bridgeport, Conn., drawn expressly for us. We shall also present a draft of the "Woosteree." Also a portrait and sketch of the life of Mr. Jason Clapp, of Pittsfield, Mass., which cannot fail to please.

Before leaving this subject, we would request any who intend to compete for the premium for the next plate of ornaments, to hurry up before next quarter comes round.

A Good Move.—Mr. C. Van Horn, of this city, who, by the way, is an advertiser in our columns, has further exemplified his shrewdness, and set an example which others might imitate to their own advantage, by presenting a number of his customers with a gratuitous copy of our Magazine for one year, mailed from our office direct. No doubt, he will secure, as he well merits, the continued patronage of his old friends, while, at the same time, he is rendering "material aid" to our new and prosperous undertaking. Who will follow his noble example by doing likewise?

Another Portrait in September.—Our next number will contain a lifelike portrait of that venerable man, Mr. Jason Clapp, of Pittsfield, Mass. We have secured the services of a competent writer, and an intimate friend of the family, to write out the biography; so we have no doubt but it will be copious and truthful to the life. Mr. C. is probably the eldest, and one among the most successful coach-makers of the present time. His life has been singularly eventful, and will ask no aid from fancy to embellish and render it interesting. The army of young and middle-aged men who have served their time with him, and who are now, as a general thing, officiating in the capacity of foremen in first-class factories, will, no doubt, be gratified by this announcement, as will his friends and acquaintances everywhere.

☞We intend, in our September number, to commence a series of articles on the manufacture of wheels, which we had originally designed for another publication, but which, from unforeseen circumstances, was cut short on the appearance of the first article by "trouble in the camp." These have been re-written expressly for this Magazine, and we think that the series, when completed, will prove interesting as well as useful to our patrons. Meanwhile, read the letter from our friend, Mr. G. R. Groot, given in this number, upon the same subject.

Editorial Shavings.

An Erudite Mayor.—The Worcester *Chronicle* gives the following as the verbatim copy of a letter from a chief magistrate of a certain corporation: "Dear sur,—On Monday next I am to be made a Mare, and shall be much obliged to you if so be as you will send me down by the Coatch some provisions fetting for the occasion, and I am to ax my brother, the old Mare, and the rest of the Bentch. I am, sur," etc. The above was answered by a wag, into whose hands it fell, as follows: "Sir,—In obedience to your orders, I have sent, per coach, two bushels of the best oats; and, as you are to treat the *Old Mare*, have added some bran to make a mash."

The Wheel of Fortune.—*Punch* says it must have originally belonged to an omnibus, for it is continually "taking up" and "putting down" people. *Miss*-Fortune, we think, must have been another, the off-wheel from the same "*w*ehicle," as she not only "takes people in," but is continually leading them into trouble, out of which they are very *fortunate* should they escape, as Paddy would say, without being "kilt."

THIS FAST AGE.—A recent publication, treating on the subject of telegraphs (or "*telegrams*," as the *elite* of our would-be modern Solons—language-tinkers as they are—have lately baptized the word), gives the length of telegraphic communication in America as 41,362 miles; and the expenditure upon it as amounting to $6,671,800. What a lightning-girdled, canal-environed, and iron-bound nation this is becoming! We now need but a well-*subjugated* balloon, or a *properly*-constructed "flying machine," to perfect our means of transit and communication. When either of these *desiderata* shall have become a *fait accompli*, we may hope to be enabled to mount our aëronautical car in the morning, and, by way of arising, make a "flying visit" to the Court of St. James, the Tuileries, or St. Petersburg—thence "drop in" upon our "brother of the Sun," his "Celestial" Highness, and be home in time for early lunch, with a sharpened appetite after such aërial flight. Verily, we are units of a *rising* nation, and live in a *fast* age!

NEW YORK OMNIBUSES—NUMBER, &c.—"Four hundred and eighty-nine omnibus licenses were taken out last year, instead of 1,000, as there were about the year 1853. The 489 licenses, at $20 per stage, amount to $9,780. This number of stages will require 2,934 horses and 1,000 men, exclusive of blacksmiths, harness-makers, stage-builders, and painters attached to the establishments. Each stableman is expected to take care of fifteen horses, and extra drivers and hands are always found about the stables. The cost of an omnibus is $500—a stage-horse, $100; but an omnibus and the necessary six horses therefor can be bought for $1,000. A stage will make from $8 to $10 per day, and it costs $6 to run it."

"SQUIBS" wants to know if doctors, by looking at the tongue of a *wagon*, can tell what ails it? Well, now, that is rich! Why, Mr. Squibs, *some* doctors are so *ignorant*, that they do not even know what is meant by the "tongue" of a wagon!

THE number of vehicles, of all kinds, in Paris, is reported to be 32,000; the number of horses, 50,000.

COACH-CARVING.

A SECOND LETTER.

NEW HAVEN, July 1st, 1858.

MESSRS. EDITORS,—It is not my province to teach the art of drawing; but, as I proposed in my introductory letter, I shall now proceed to explain and illustrate the application of ornamental design to coach-carving.

Ornament, however complicated, is but a combination of curves and undulating lines, usually called the line of beauty, which is comprised in two curves reversed. [See Figures 1 and 2.] These are the foundation of all ornament,

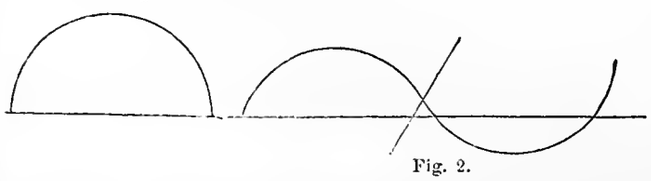


Fig. 2.

and, however elaborate they may be, they are but a succession of these curves.

Figure 3 is a continuation of Figure 2, and shows the principle of combination. The beauty of this ornament

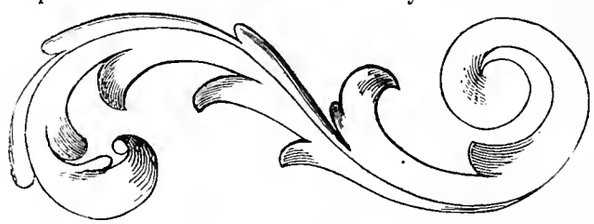


Fig. 3.

lies in the various curves running in harmony with the contour, general sweep, or starting point. Now, so long as this principle is adhered to, the eye will be pleased; but, if disregarded for the sake of novelty or excess of elaboration, the reverse will be the result, and, consequently, will cease to be ornamental. [See my introductory letter on page 37.]

Figure 4 is a good illustration of the principle I have just laid down. It is a phæton side, the panel of which is

Fig. 4.

composed of two separate lines, or lines of beauty. The panel is equal, and the starting point (*a*) is drawn and rakes with the pitch of the panel in the centre. One end of this panel shows the principle in Figure 2, and the opposite in Figure 3. The panel should not be filled entirely with ornament, but a space should be left all around between the bead and carving, which improves the panel very much. The correct principle is an equalization of ground and ornament.

Figure 5 is a back-light, composed of unequal curves, ornamented with a carved cap instead of a smooth mould-

Fig. 5.

ing. This, also, shows the principle in Figures 2 and 3, carried out on a back-light and with the most simple features of ornament.

Coach-carving, in its treatment, is quite different from any other kind of art manufacture, and partakes of a character peculiar to itself. As a general rule, it is executed in what is usually called bas-relief, and very seldom in middle or high relief—that is, it is superficial, and must be, with the present style of carving, as the stronger projection of a beaded panel is half an inch. There may be exceptions to this rule, but they will be found very rare. There are two ways of distinguishing coach-carving. Carving for plain work must be executed more elaborately than work which

is to be "touched up" by the painter. It is customary, in plain work, to cut in all the fibres, members, and details; but, in fancy work, they are left out, to give the painter an opportunity to exercise his talents. I shall explain this more fully in my next, with diagrams; also, some new features which will be interesting to your readers.

Your humble servant,

James H. Campbell.

For the New York Coach-maker's Magazine.

COAT OF ARMS OF THE "UNITED KINGDOM SOCIETY OF COACH-MAKERS," IN ENGLAND.

BY J. G. D., OF N. Y. CITY.

At the present time, when the idea of founding a similar order is becoming so popular among the coach-makers in this country, a few remarks, relative to the practical workings of the "United Kingdom Society," may not be uninteresting to your readers.

THE UNITED KINGDOM SOCIETY OF COACH-MAKERS' ARMS.

The national order first originated in a local one, whose existence in London dates back to a very distant period, and which probably originated in a "strike" among the workmen after a long period of depression, as their original motto—"Surgit post Nubila Phœbus"—signifies, after clouds, the sun rises; in other words, light has come out of darkness. As this society increased in numbers, it was found inconvenient to meet in a body; so the original club (as it might then have been termed) acted as a "grand lodge" in founding subordinate branches. From London it spread to other neighboring cities, and, notwithstanding it encountered much opposition, it soon became a national movement, and is at the present time vastly popular, among both workmen and employers. About the year 1700, a coat of arms was awarded to the London Society. The shield figures were formed ofnational and mechanical representations, standing upon arabesque scrolls, and supported on the right and left by richly-caparisoned coursers. Beneath is an emblem of the four principal divisions of the trade, fraternally joining hands in a ring, and that surrounded with floral emblems of the good, the beautiful and true. The whole is surmounted with a representation of Phœbus in his chariot of light. This insignia has since been adopted by the "United Kingdom Society," but with the motto inserted in the engraving above.

This society is more radical in its cast than the nature of an American trade would permit, or could be desired by intelligent American mechanics; but, with all this, it has proved a moral and social benefit to European mechanics and employers. Those who once opposed it have since been convinced, by a more thorough knowledge of its workings, that it is decidedly to their advantage, and society men are employed in preference to others. One reason for this preference is, that none but men who have served out their term of apprenticeship honorably, and can make a fair show of reliability and good character, are admitted to the society, and this serves as a stimulus to workmen, and an ensample to young tradesmen, which leads them to build up and sustain an unspotted reputation, while it serves as a sort of a recommend in the absence of a better acquaintance. In the large cities, the society's rooms are always open; so that strangers and others, wishing for either employment or information, can always find a friend and informant, and if necessary a guide. This arrangement cuts off the disagreeable necessity of visiting factories in search of work, which is alike chilling to workmen and annoying to busy-headed employers. When workmen desire a situation, they simply register their names, and await the visit of help seekers, or the return of register bulletins, and society men are ever on the alert to obtain workmen for such as desire help. As a precautionary measure, each member is required to take out a fresh card before going abroad, and to have it freshly inclosed and re-dated in each city which he passes through, unless it is made over to a certain place at the start. By this means, a member who stands charged with some offense against his own and the society's good name, or who has recently been expelled for some disgraceful act, is debarred from passing himself off, in some strange city, as a member in good standing, and thus not only abuse public confidence but hazard the reputation of the society.

The armorial ensign of the "United Kingdom Society" is highly national in its representations, and its use was roundly taxed—as are all aristocratic distinctions—by the guardians of royalty. But, in this country, a "coat of arms" is but a picture, and a picture is but an exquisite appeal to the higher and holier sensibilities of our natures, through the ideal pantomime of a skillful delineator. With these we may ornament our cards, banners, or even coaches, subject to no laws, but those of art, and the intuitive perceptions of the human mind.

[We give place to the above communication, with the hope of eliciting further attention to this subject among our readers. Our correspondent, probably, was not aware that there have been two organizations of the United Kingdom Society; the first, somewhere about 1700, the second, at a later period. The earlier coat of arms slightly differed from the one above given, and the mottoes differed entirely.—Ed.]

For the New York Coach-maker's Magazine.

AN EXPERIENCED MAN ON THE SUBJECT OF WHEELS.

Messrs. Editors,—A few practical hints, through the medium of the Magazine, by one who has had a long experience in the manufacturing of carriages, may be of some advantage to those not fully posted up in all the essential points, as to the durability and running of carriages.

With your permission, I propose giving your readers, in as few words as possible, a brief notice of the principal points which belong to a well-constructed carriage. I will notice, first, the

WHEEL.

The present style requires the wheels of all our light vehicles to be not only very light, but high. In consequence of this prevailing fashion, it becomes necessary to have the materials of the choicest quality, and to be perfectly seasoned before making up. Kiln-drying, or seasoning very quick, should in all cases be avoided, because seasoning timber by artificial means always makes it brittle; stuff thus seasoned will make *short shavings*. Good gum timber is, no doubt, best for light hubs. Next is white-elm, which is mostly employed. The best butt-logs only should be used. Hubs should be turned or "ruffed" out to nearly the size, and a hole bored through the centre while green, and placed in a dry room to season moderately for six or eight months; at this time they should be turned—but not mortised—and again placed in a dry place, to finish the seasoning.

To be sure that the hubs are dry before using them, put "false" bands on a few, and place them in a warm, dry spot for a few days. The facts will soon be known. Good hubs are always *tight* and *heavy grain*, whether green or dry.

Tight *fine* grain and *heavy* hickory are the qualities for either spoke or rim, for light wheels.

If the stuff is well seasoned—that is, seasoned in a way not to kill the life of the fibres—and put together by a good wheelwright, and in a proper manner, the wheels will stand. Wheels are generally spoiled before they are made up. The points, then, are—First: to obtain good tough, heavy, tight-grained timber, seasoned in such a manner as not to cause the destruction of the life of the fibres.

Second: The stuff must be perfectly *dry* when made up.

Third: If put together in the right way, the wheels will stand.

I have omitted many points which could be discussed to advantage. The above, however, are the most essential qualifications. G. R. G.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME AND ABROAD.

AMERICAN PATENTED INVENTIONS.

June 8. — Carriage Springs. — David M. Lane, of West Philadelphia, Pa.: I do not claim, broadly, the combining of wood and steel in the manufacture of springs for vehicles, for this has been previously done.

But I claim providing the extremities of the plates, A A', with sockets, C, to receive the ends of the wooden springs, B B', as and for the purposes set forth.

Brake for Wagon, &c.—Benjamin B. Munroe, of South Dansville, N. Y.: I claim first, the brake bar, B, when jointed in the manner and for the purpose set forth.

Second, I claim the extension perch, constructed in the manner specified.

Additional. — Tightening the Tires of Carriage Wheels.—R. R. Scott, of Philadelphia, Pa.: Patented Mar. 23, 1858—additional improvement dated June 8, 1858: Disclaiming the exclusive use of two sets of taper keys for drawing together the two ends of the tire, I claim the ends, B and C, of the tire, with their respective slotted blocks, b and c, the taper keys, and the bolt, G, when arranged for joint operation, substantially as and for the purpose set forth.

June 15.—Reducing Wheel Tires.—Iris Hobson, of Stout's Grove, Ill.: I claim the sliding curved anvil formed of one straight and two semi-elliptic spring bars, K, L, M, and furnished with two holding jaws, O O, in combination with two toothed stationary jaws, o, o, and a vice screw, I, substantially as and for the purposes set forth.

Metallic Hubs for Carriage Wheels.—S. J. Russell, of Chicago, Ill.: I claim the wedge-shaped projections, E and F, when employed in connection with the spaces, e e, and hooks, S S, for receiving the spokes, and locking the two parts of the hub firmly together, substantially as set forth.

I also claim the use of India-rubber to protect the woody fibre of the spokes, as set forth.

June 22.—Machine for Setting Spokes in Hubs.—Andrew Hafer and George Wilkinson, of Colon, Mich.: We claim the disk, A, having teeth, i, formed on a portion of its periphery, and curved grooves, a, made in its inner face, the plate, B, provided with slotted arms, in which jaws, C, are placed, the plate being provided with a pall, h, and handle, E, and fitted to the disk by means of the pin, f, and nut, G, the pin forming the axis of the sweep, D, the whole being combined and arranged as and for the purpose set forth.

Metallic Wheels for Vehicles. — Thomas McConaughy and James McCollum, of Burnsville, Ala.: We claim the combination of the feathered box, wrought metal bands and system of braces, C, with the screw rods and rim of the wheel, constructed, arranged and operating substantially as and for the purpose set forth.

June 29.—Apparatus for Heating Tires. — J. J. White, (assignor to himself and Francis Fox), of Philadelphia, Pa.: I claim the casting, B, with its revolving grate and lid, in combination with the fire chamber, S, and fan, R, or other equivalent blowing apparatus, when the whole are arranged for joint operation, substantially as and for the purpose set forth.

Upsetting Tire.—G. W. Cooper, of Morenci, Mich.: I claim the jaws, G, attached to rods, f, which are provided with springs, g, and have a vertical movement, as well as a rotating one, and the inclined planes, h, in the plate below the jaws, C, the above parts being used in connection with the stationary jaws, F, the jaws being applied to the ledges, b b, of the plates, B D, and arranged as and for the purpose set forth.

July 6.—Machine for Upsetting Carriage Axles. — Zina Doolittle, of Perry, Ga.: I claim, first, the arrangement of the centre bar or anvil, A L, pivoted jaws, B B, and eccentric levers, D D, in the relation to one another shown, for the purposes set forth.

Second, The combination with the above of eccentric clutches, F F, dies, G G, springs, H H, and slides, I I, substantially as and for the purposes set forth.

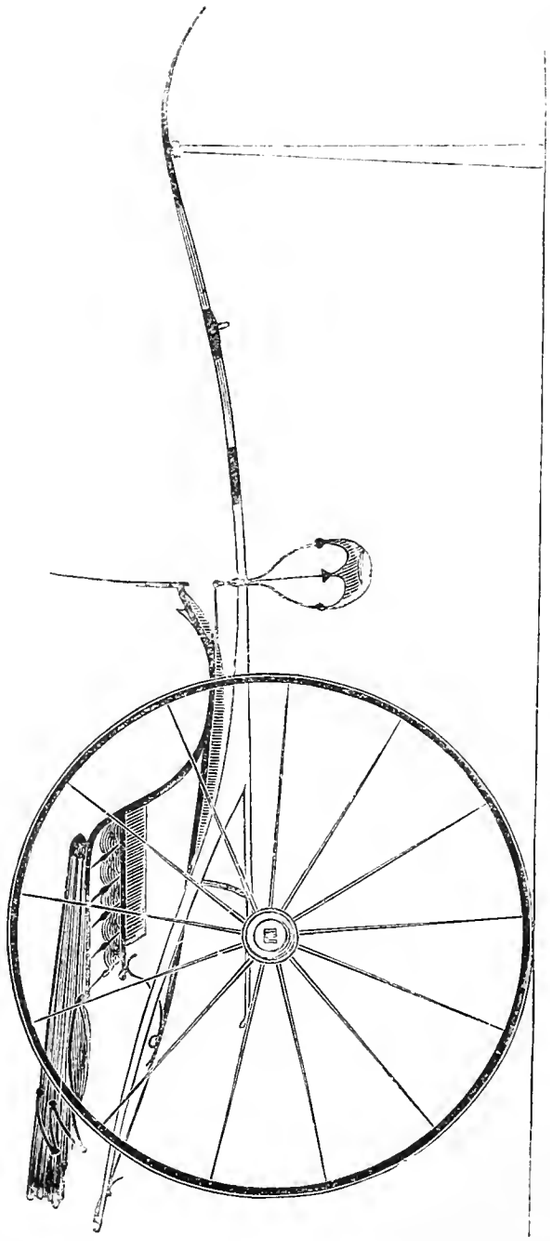
Running Gear of Wagons.—Jonathan Hibbs, of Tullytown, Pa.: I claim the method described of operating both the axles of a wagon in turning curves, namely, by means of the curved rack affixed to each axle, in combination with the connecting pinion, in the manner and for the purposes substantially set forth.

Attaching Carriage Springs.—Luther Otway Rice, of Berlin, Canada West: I do not claim either section of the springs described when separately considered. I claim placing the scroll spring, A, divergent to the axle and supporting the same on the axle by means of the clip, c, at the end thereof, and the raised double clip, D, or equivalent, near the wheel, for the purposes and substantially as described.

LATE EUROPEAN PATENTED INVENTIONS.

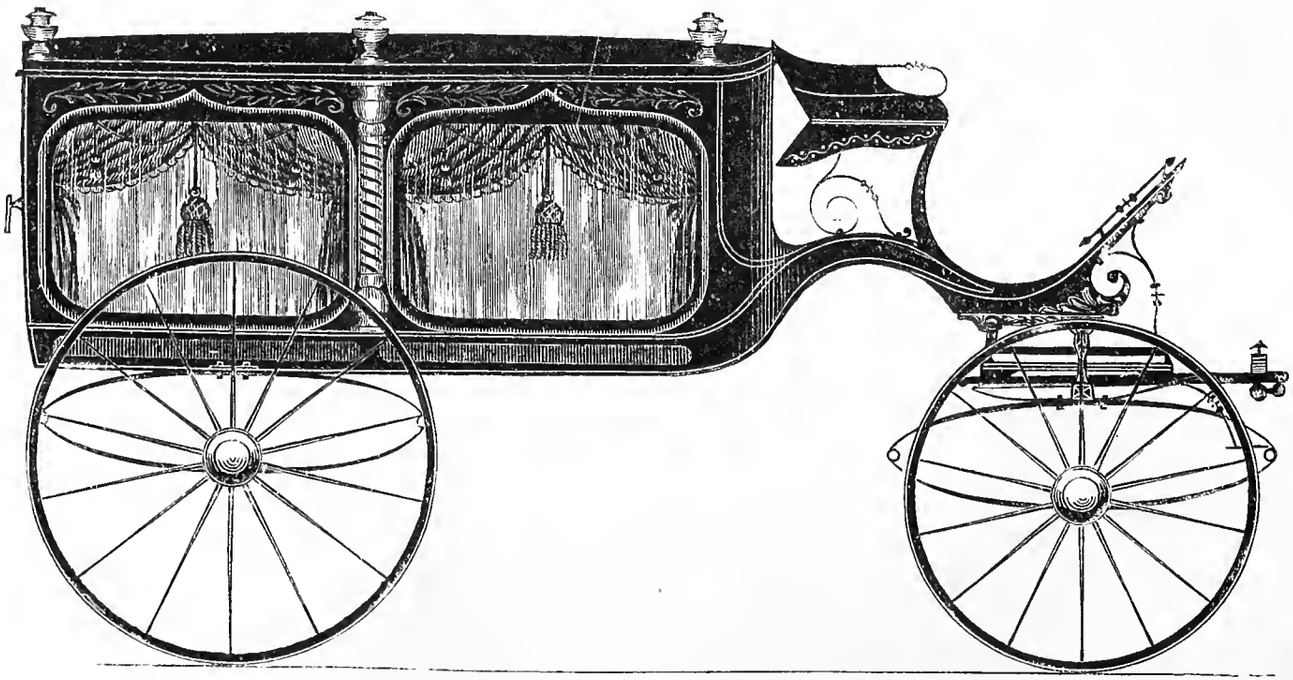
Whether our cousins in Europe have expended their inventive faculties in plans for laying the Atlantic Telegraph, or in the creation of warlike missives for putting down the Sepoys, we cannot tell, but certain it is that there is a remarkably slim record of creative genius, as applicable to coach-making, to be found in our foreign files for the past month. We can give the following only:

Thomas B. Ayshford, 1 Britannia Road, Walham Green, Fulham: Certain improvements in the construction of carriages called omnibuses.



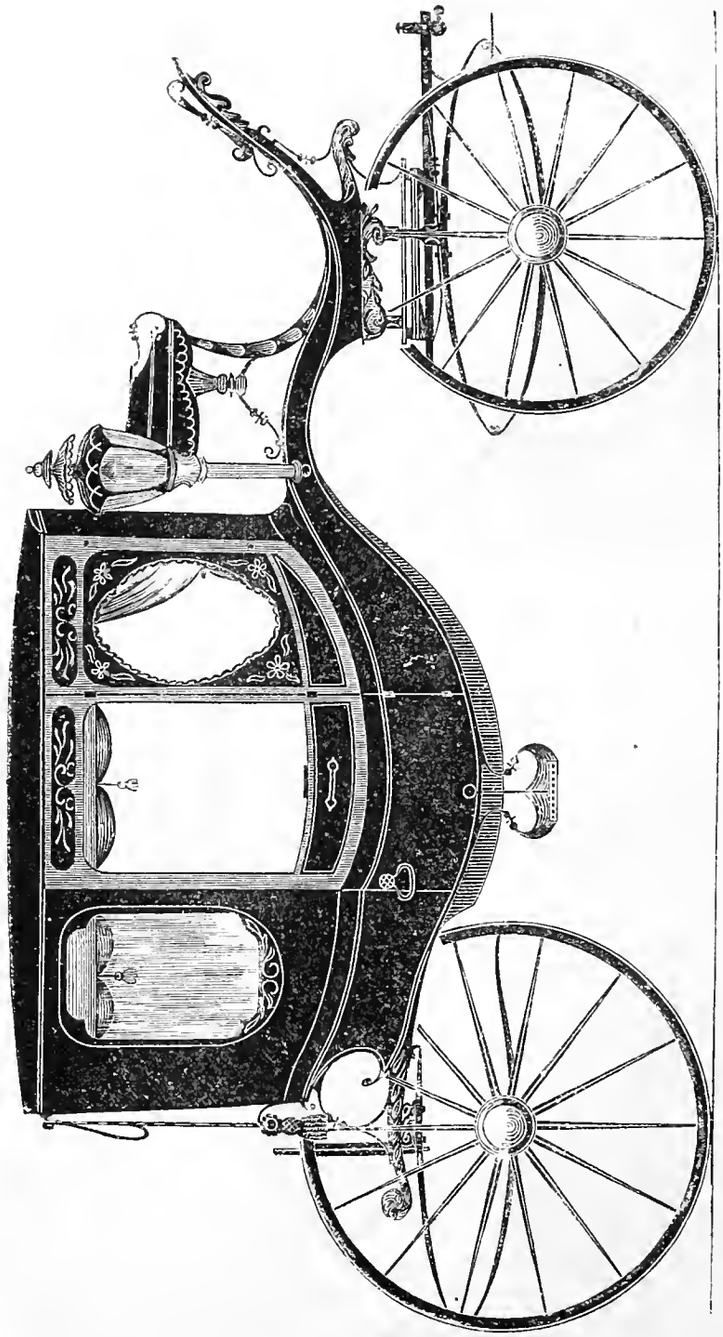
THE WOOSTEREE.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 70.



THE HEARSE.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 70.



CALASH COACH.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 70.

Yours With Respect,
Jason Clapp

Engraved expressly for the New York Coach-Maker's Magazine.

September, 1858.

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, SEPTEMBER, 1858. No. 4.

The Coach-Maker's Portrait Gallery.

For the N. Y. Coach-maker's Magazine.

BIOGRAPHY OF JASON CLAPP, ESQ.

(WITH PORTRAIT.)

In a previous number of our Journal, we stated the design of giving a portrait of Jason Clapp, Esq., of Pittsfield, Mass., a cotemporary of James Brewster, Esq., of New Haven, Conn., in the coach-making business. We have the pleasure now of fulfilling that intention.

We give some incidents of interest in regard to Mr. Clapp. He was born in Northampton, Mass., on the 5th of November, 1782. His father was Ebenezer Clapp, a native of Northampton. His mother, whose maiden name was Ann Tileston, was a native of Dorchester, Mass. His boyhood was spent in Northampton. He attended a common school a portion of the time, until the age of seventeen. His educational advantages were limited, and he has often said to his children, while contrasting the superior advantages for education of the present day, that, in the beginning of the present century, boys had scarcely any privileges; that he "only attended school in the evening, and then had no candle!"

At the age of seventeen, he was apprenticed to the carriage-making business, in the shop of James Dunham.* He received as his wages only *eight dollars a year*, in addition to his board, and, on the conclusion of his apprenticeship, was in debt to a relative $60, for necessary clothing, which he soon paid. The "go-to-meeting" dress of that day many modern apprentices would hardly consider good enough to work in at the bench.

At the age of twenty-one years, he was induced, by the late Lemuel Pomeroy, Esq., of Pittsfield, to become the foreman of his carriage manufactory, and continued in that capacity for the period of six years. On the conclusion of his apprenticeship, it was his intention to establish a carriage factory at Utica, New York, but the inducements offered by Mr. Pomeroy changed his determination. He commenced business for himself, in Pittsfield, in the year 1810. The description of carriages first made were the Boston chaises, now rarely seen in this locality, but still much used in the vicinity of Boston and on the coast. Phætons and ribbed wagons were afterwards much used, and made by Mr. Clapp. At present, light carriages, buggies, and the most costly coaches are made at his factory. Some, in the highest style of the art, have been sold in the New York and Boston markets as high as $1,500 each. The carriage presented to President Pierce, by some of his friends in Boston, was made by Messrs. Jason Clapp & Son (a son of Mr. Clapp being now connected with him in business), and has been pronounced by good judges to have been equal, if not superior, in fine workmanship, to any carriage ever made in America. His carriages are in use in almost every State of the Union, and many have been sold to go to Russia, Mexico, and other countries. Twice have medals for the best coaches been awarded him by the Massachusetts Mechanics' Charitable Association.

Mr. C. has had about 300 apprentices, most of whom have turned out well, and some have become distinguished in the art, and found desirable situations.

Some of his hands have continued steadily in his employ for more than forty years, and this remarkable fact has no doubt served to secure the reputation which his work has enjoyed. The number of men usually employed has varied from 40 to 50. It is also worthy of notice, that no man of the hundreds he has employed ever left him feeling that the employer had not fulfilled every obligation he entered into.

The marked success of Mr. C. in his business is to be attributed to his untiring industry, superior judgment, and keen perception, and a rigid adherence to the glorious motto, which rarely fails to be attended with success, that of *doing unto others as he would be done by—and allowing no work to go from his shop that he did not believe was superior in workmanship and would give satisfaction to purchasers.* It was a remark of Mr. Eaton, the head of the eminent firm of Eaton & Gilbert, Coach and Car Builders of Troy, N. Y., that "the oldest man has never known a wheel made by Jason Clapp to wear out!" Such

* It appears, from the above statement, that our information was incorrect, when we stated, in giving the biography of James Brewster, Esq., in our June number, that Mr. Clapp and Mr. Brewster both learned their trades in the same shop. We, therefore, stand corrected.

We are under obligations to Mr. E. Dunham, of Pittsfield, for the following facts in the history of his father, with whom Mr. Clapp learned his trade, as detailed in a private letter to us: "Mr. James Dunham served his time in New York, and moved to Northampton, Mass., about the year 1800. In 1807, he removed to Hoosack (on the Hudson river), New York and afterwards again went back to Pittsfield, where he died in July, 1856—76 years old."

[Ed.

a compliment as this, from such a source, is a tribute to the excellence which characterizes the manufactures of Mr. Clapp.

The reverence of Mr. C. for his parents is shown in the commendable fact, that his first earnings, on obtaining his majority, were devoted to the canceling of the debts of his father, and long and faithfully did he most cheerfully attend to the supplying of their wants.

Mr. C. has uniformly declined honors which his friends have wished to bestow, but was twice induced to represent the town of Pittsfield in the Legislature of the State.

His energy and devotion to business are well shown in an anecdote which has been often repeated in the village where he resides. Many years since, he was taken ill, and his physician, the late Dr. Oren Wright, was sent for by his wife. He came, and left a prescription, and directed that the patient *should remain in the house and be quiet.* On calling the next day to see his patient, he found him in his yard, giving directions to his men; and, on approaching, Mr. C. remarked, "Doctor, I am busy now; can't attend to you; you must call another time."

It is a singular fact, and worthy of mention and imitation too, that Mr. C., in conducting his business, has never asked a bank to discount a note—has never had an endorser—and has never borrowed a dollar! He has gone on increasing by degrees, as the profits warranted, and to this is to be attributed his rare success. Mr. C. has often remarked, that the great difficulty at the present day is, that "men want to go too fast at first—*they want to start upon a gallop.*"

From 1815 to 1840, Mr. C. was also largely engaged in the stage business, and for many years was contractor for carrying the great mail between Boston and Albany. A.

For the New York Coach-maker's Magazine.

THE THREE-FOLD NATURE OF MAN.

BY CHARLES C. KEYS.

NO. III.

In our last number, the study of anatomy and physiology was recommended, in order to acquire a knowledge of our physical nature, and we should be no less familiar with the laws of mind, and the intellectual faculties, and with our character as moral beings, than with the wonderful and miraculous frame-work of our physical systems. The one, though immaterial and not cognizant by the senses, is an essential part of our nature as well as the other, and, considering man as a complex being, whose nature is divided into different departments, the physical must be regarded as subordinate to the intellectual and the moral; the former as the servant of the latter, designed to minister to its necessities and to fulfill its wishes, and, consequently, as its inferior both by nature and position. And though this order is frequently reversed by us, in the general estimate we form of the two natures, as well as in the relative amount of attention and care bestowed upon them, it nevertheless stands as the order of God and cannot with impunity be ignored. Not only, then, because man has a mind and a heart, with intellectual and moral powers, but because these constitute his chief excellency, and because in these respects he resembles the glorious pattern and divine image after which he was made, do we recommend the study of that philosophy which would make him acquainted with these higher departments of his being. Mental and moral science, though undervalued and often decried by those who have no love of knowledge and no desire for improvement, is, nevertheless, a study suggested by the nature we possess, and is a source of the purest enjoyment to those who are aiming at the highest forms of self-culture—a well-spring from which they may draw without fear of exhausting the perennial supply, and the largest draughts from which only stimulate the appetite for more. I would not recommend to the simple mechanic, or the person of small leisure, a study of all the niceties and abstractions of metaphysics; I would not urge such a one to seek the bottom of this fathomless sea with laborious zeal and breathless toil; such extended investigations should be left to men of greater learning and more ample opportunities, but a sufficient knowledge in these departments should be acquired to gratify a moderate ambition and to answer the common purposes of life. Those who have the necessary turn of mind for these pursuits, and sufficient leisure, may make them a principal study if they choose. But every man should know something of himself in these important respects; something of his mental constitution and moral powers; something of that unseen and intangible and spiritual essence which causes him to rank so high in the scale of being, which connects him on terms of so great intimacy to the great Source of all life, and which gives so much importance to his existence. And in whatever degree we are advanced in this kind of knowledge, we shall find that to a proportionate extent our interest and happiness are promoted thereby. Such knowledge cannot be otherwise than of the utmost importance to us. It is essential to the rank we occupy in God's animate creation, to the improvement which God designed should be realized by the continued culture and right exercise of our spiritual powers, and to a great variety of most important purposes, connected with whatever position we may occupy in life.

Let a man know that he has a mind possessed of great powers, and capable of great things, that he has a soul formed with the wisest and most gracious designs, and equally capable of a wide range of beneficent action, a soul possessing almost illimitable capacities, susceptible of improvement almost *ad infinitum*, and made expressly for the purpose of glorifying and enjoying Him who is the chief good, and let his general course of life be in harmony with the knowledge thus acquired, and he cannot be a loser thereby, but, on the contrary, will give evidence, in various ways, of the happy effects which this cultivation has produced upon him.

If, then, we would discharge the first duty which we owe to ourselves, let us invert the direction in which our eyes are wont to turn—for a while lose sight of all that is external to ourselves and survey the world within. Let us examine ourselves, study the philosophy of mind, and the philosophy of our moral feelings. In this manner we will come to know our capabilities and our obligations, the infinitely varied modes of action proper to our intellectual and moral nature, and the responsibilities which cannot be disregarded without doing violence to ourselves and to the relations in which God has placed us. Thus only can we fulfill the purpose of our being, and answer the design of our great Creator.

It is not to be expected that the material mote that floats in the sunbeam, or that any one of the constituent atoms which form our globe, should be capable of analyz-

ing their nature, or improving their condition; neither can the insect or worm—but in a slight degree removed from inorganized matter—develop their natures beyond the limits assigned them, or possess any enlightened and available knowledge, either of themselves or the relations in which they are held to the material and spiritual world. Unintelligent instinct is the highest law by which they are governed, and no reasoning faculties can be exercised, either to control their movements, or contribute to their pleasure.

But with man it is far otherwise. He has been made after the intelligent and moral image of God, takes rank with the highest orders of the intelligent creation, possesses rare mental powers, and is capable of moral actions for which he is responsible to his moral Governor. By proper effort he can acquire self-knowledge, a knowledge of God, and a knowledge of all the relations he sustains in life, designed to modify and regulate his conduct, and creating those obligations which should uniformly command his most profound respect. For him, it is a shame that he should forget himself—that he should act out of character—that he should be unmindful and forgetful of his high dignity, and that he should have no regard to that which constitutes his superiority over the material and brute creation. And such are the more inexcusable, because of their immediate proximity to the field which is to be explored. They are under no necessity of ascending up into heaven, or descending into the bowels of the death, or winging their flight to the extreme parts of the earth, in order to find the subject of their investigation. This is near at hand, truly, *in their heart, and mind, and flesh.* And this field invites the most diligent exploration. It is a field of surpassing beauty, and of boundless extent. The objects presented to the eye are of great number and infinite variety; and every one of these objects is of sufficient interest and importance to be made the subject of special and minute inquiry. The understanding, the judgment, the imagination, the memory, the will, the conscience, and the affections—all go to make up the unit—soul, and, as far as may be, should be comprehended in their various functions and modes of operation, as well as in whatever may be discovered as pertaining severally to their specific natures. Having acquired a knowledge of himself in the different departments of his being, there are other duties devolving upon man, based upon the knowledge thus acquired. These will form the subject of another article.

NOTES OF TRAVEL.

BY THE JUNIOR EDITOR.

CHAPTER III.

"When thou haply seest
Some rare, note-worthy object in thy travels,
Make me partaker of thy happiness."—SHAKSPEARE.

RESPECTED SENIOR:

MY last "Notes," sent from Hartford, were soon followed to New York by the writer in person, and, were it not for a little incident which occurred, I should be tempted to pen a glowing description of my passage from New Haven on the dancing waters of Long Island Sound; but I closed my eyes soon after taking the boat, and forgot to open them again until startled by the outcry of the hackmen at the dock in New York. Here the glorious Fourth of July was rendered *still more glorious* by the warm greetings of friends, and in seeing the parades and sights of Gotham. But time—that first foe, and last friend of mankind—at length began to hang heavily, so I made a hasty trip to Newark, where I was welcomed by a host of enterprising stock-dealers who are now advertisers in this work; but, a glance at the coach factories assured me that the people of Newark were more patriotic than their neighbors, and, being informed that it would take a full week for this patriotism to evaporate, I took my departure in search of some town less infected with a desire for spending money. So my observations on the manufacturing interests of Newark are reserved, to be placed, with other matters of local interest, in a future chapter.

The competition between the various railway and steamboat conveyances makes traveling cheap at present with all but way passengers—the regular excursion rates to Buffalo and the Falls being $5, and to Albany $1. But, when one stops to do business by the way, it costs fully three times the advertised rates.

But the Hudson river route being regarded as a proper one for canvassing, I concluded to try the *bill*-ious experiment. This being a sleigh-making country, it was thought a sufficient guarantee that the workmen were not sufficiently *independent* to keep them out of town long.

So, mounting the "lightning train" (of horse-cars) at the Chambers-st. station, I took my leave of New York, to gaze once more upon the beautiful towns that nestle among the gentle slopes and craggy heights of the Hudson.

Halting at Tarrytown, I found crowds of fashionables; but, alas for coach-making! I was encouraged, however, by learning that Mr. Huntington, and also a Mr. Wright, who had lately come to town, intending to build work for the New York market, had hopes of brushing up a smart business this fall.

At Sing Sing, the Acker and Carpenter establishments are doing a fine business, and some half a dozen other shops are doing something. But Peekskill, a few miles above, though a fine town, seems to be doing but little in carriage-making.

Poughkeepsie stands *foremost* among the towns that line the east banks of the river from New York to Albany. At this point a club of some twenty-five or thirty subscribers was soon formed, and, after paying a visit to the large carriage-band manufactory of Hannah & Storm, I took my departure, cheered by the kindness of both workmen and employers.

When I had reached Rhinebeck I chanced to remember the kind face of Mr. Hermance, at Kingston, and, for the first time in my route, crossed the noble Hudson. Rondout, on the opposite bank of the river, presents quite a business-like appearance. Nearly every house on the main street is a whisky shop, and, as we moved slowly up the *long* hill, it was estimated by some of the passengers that not less than ninety-seven *separate* and *distinct* scents greeted our olfactories! It was evidently no *water*-ing place; so my inquisitiveness led me to ask a clerical gentleman, who sat opposite me, who he supposed their patrons were? He happened to be acquainted there, and kindly informed me that it was their *own families* and the "floating population"—meaning the canal boatmen, I suppose. Kingston lies some two miles above Rondout, and a handsomer or more agreeable place to sojourn in is not often found. Mr. Hermance, with his usual courtesy, "made me at home," and assisted me in taking a club of ten. But the afterpiece, which filled in the background of my visit, would have been laughable had it not bordered so closely upon the tragic. On my way to the hotel, I dropped into a

small shop, and, after making known my business, was literally "blown up" by the proprietor, who, very *Merritt*-oriously, volunteered *to bark* not only for himself but for some three or four of his workmen, who had (as he claimed) "been *bitten* by taking the last volume of the Western work," and since I had been *its agent* he was bound to give me "fits." I had previously come across two or three such instances in small country shops; but I have generally found coolness and a straightforward explanation of my position and responsibility *as an agent* a sufficient antidote to such ravings; but, in this instance, I saw that there was much less desire for understanding my past position and present objects than to fulfill a vow—so I was forced to substitute the discretion of prudence for that of courtesy.

At Hudson, I was assisted in taking up a fine club, at the establishment of Messrs. Burger & Kidney, by one of the proprietors. The other shops in the place were doing but little.

At Albany, that veteran Coach-maker, Mr. Jas. Goold, received me very warmly, and permitted his foreman, Mr. Perry, to assist in taking a large club; and Mr. Bush, the junior partner, laid the Magazine under many obligations for other favors.

Messrs. Long & Silsby also very kindly aided me in forming a club, as did the Messrs. Guardenier & Selkirk, and others.

In West Troy, I was received and aided by our draftsman, Mr. Richmond. Here I received a club of some 8 or 9; but one of the proprietors felt a little *kinkey*, having (as he said) been humbugged in 1856, with a similar publication. He treated me very well, however, but ventured to suggest "that the Magazine might be a good thing (he had not looked at it), but that he considered it *a money making affair*." A crumb of consolation for the Senior.

I mention these little offsets to our usual good luck, that the public may know just how the Magazine is received, what difficulties it has to encounter, and how different minds act upon the same thing.

At East Troy, Mr. Lown promptly took a club of 11, and Mr. Chamberlain made up a proportionably large number, although some of his workmen were absent.

This closed my trip on the Hudson river, and I was surprised to find business as good as it is, when I consider the vast number of sleighs stored away in every town which I visited. The panic of last winter and the slow return of trade have been sufficient to produce a stagnation of business in all quarters, but here the sleigh-making business is a main dependence, and the mild winter, without the panic, was of itself sufficient to throw thousands of dollars' worth of property back on their hands from the New York market, from which they can receive no profit before next winter. In the smaller towns, an open winter has done its work, but in the larger towns they do not seem to mind it, and all appear to be driving along finely.

A bitter rivalry seems to exist between the business interests of Albany and Troy; but the "public crib" seems to be the greatest Hector that the Trojans have to encounter in their struggle for business supremacy.

The competition between the New York Central and New York and Erie Railroads furnishes a nice little trade at Albany, in the buying and selling of second-hand tickets, as the fare from Buffalo to Albany is considerably higher than it is all the way through to New York. Travelers take through tickets, and then sell them for what they can get, in Albany. These are purchased by "outsiders," who furnish them to passengers from Albany to New York, at less than the regular rates charged by the Company. The free ticket gentlemen of the Albany dailies are making a great hue and cry about "ticket swindling," and the Company stamp their tickets "Good for one day only;" but their agents dare not dishonor those little thrice-punched *checks of deposit*, though found in a third person's hands a month after. It is an ill wind that blows luck to no one.

Traveling up the river, and stopping at intermediate points, is very pleasant, but not very profitable, as the most of those places are thronged with summer visitors from New York, who come armed with the full number of trunks used on a like occasion by the heroine of "Nothing to Wear," and *determined*, with the aid of fans, bathing-robes and ice, to "keep cool," at all hazards. But these wet weather hotels *must* make enough through the summer to keep their owners from starving through the winter, so editors had better take *a through ticket*. T.

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER IV.

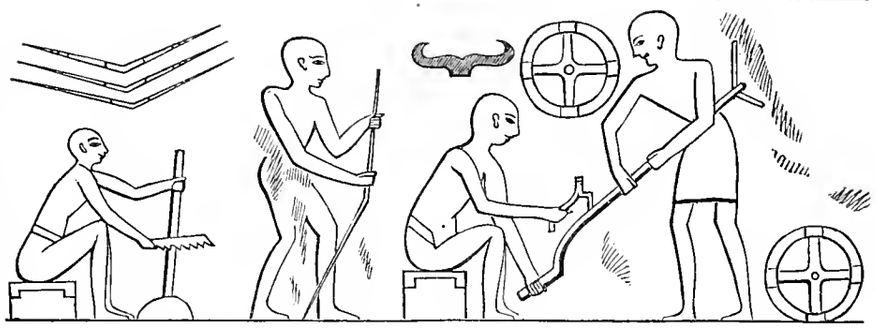
Some general remarks concerning the construction of Egyptian chariot bodies—Hanging of the bow-case—Different branches of workmen employed in the manufacture of chariots delineated on the slabs, such as making the wheel, pole and other parts, and the trimming—Egyptian wheels lightly made, and defective—Why was the felloe bent and the wooden tire "worked out?"—Chariot binding—The manner in which the Egyptians harnessed their horses to a chariot.

Labor omnia vincit
Improbus, et duris urgens in rebus egestas!
CICERO.

IN our last chapter we were fortunately presented with a subject for elucidation which, we trust, has been both profitable and instructive to the coach-maker as well as the general reader. In pursuing the subject still further, suffer us to remark that the chariots of Egypt were built extremely light, especially the body, which was a painted frame-work, strengthened and ornamented with metal and leather binding, like many of those mentioned by Homer; the bottom part rested on the axletree and lower extremity of the pole, which was itself inserted into the axle, or a socket attached to it; and some chariots are shown by the monuments to have been inlaid with silver and gold, others painted; the latter, as might be expected, the most numerous, sixty-one of them being mentioned to nine of the former. The upper rim of its front was fastened to the pole by a couple of straps to steady it, and when the horses were taken out the pole was supported on a crutch, or the wooden figure of a man, representing a captive, or enemy, who was considered fitted for this degrading office.

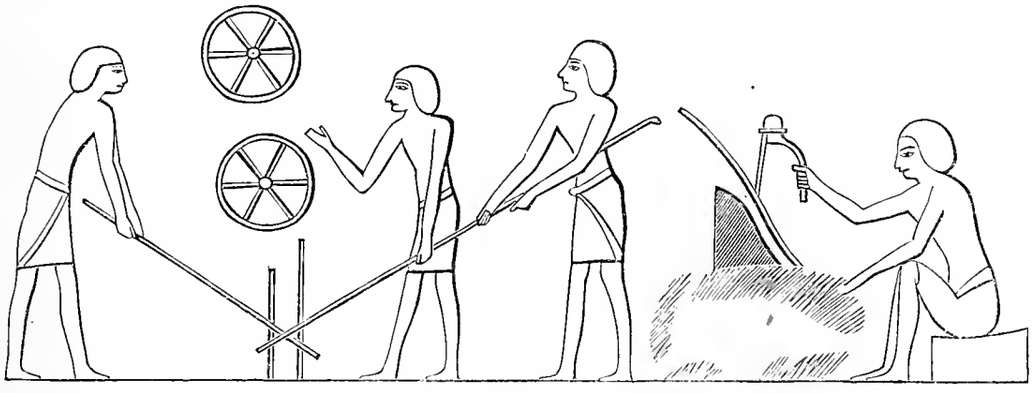
The greater portion of the sides and the whole of the back were open; the latter, indeed, entirely so, without any frame-work above. The hinder part of the lateral frame-work of the body of a chariot commenced nearly in a line with the centre of the wheel, and rising perpendicularly, or very slightly inclining backwards, from the base of the car, extended with a curve, at the height of about two feet and a half, to the front, serving as well for a safeguard to the driver as a support for his quiver and bow-case. To strengthen it, three thongs of leather were attached to each side, and an upright piece of wood con-

nected it with the base of the front part immediately above the pole, where the straps before mentioned were fastened. The bow-case was frequently richly ornamented with the figure of some animal, or other device, and was placed in an inclined position, pointing in a forward direction, with its upper edge immediately below the flexible frame-work of the chariot, so that when the bow was drawn out, the leather covering fell downwards, and left the upper part on an uninterrupted level. In battle, this was of course a matter of no importance; but in the city, where the bow-case was considered an elegant part of the ornamental hangings of a car, and continued to be attached to it, they paid some attention to the position and fall of the pendant cover, deprived, as it there was, of its bow; for the civilized state of Egyptian society required the absence of all arms, except when in actual service. The quivers and spear-cases were suspended in a contrary direction, pointing backwards; sometimes an additional quiver was attached, close to the bow-case, with a mace and other arms, and every war-chariot, containing two men, had the same number of bows.



MAKING THE POLE AND OTHER PARTS OF THE CHARIOT.

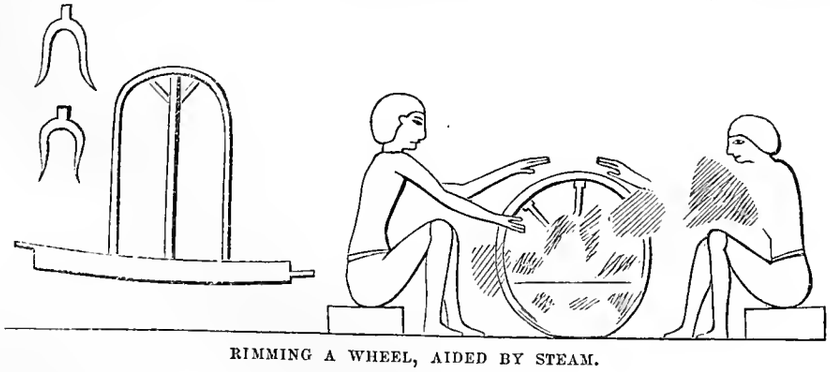
In this last figure we see a still further illustration of the ancient craftsmen at work upon a pole, sawing the timber —yokes, &c., hanging up in the shop—and the workmen at their labors, which, as in the preceding engravings, serve to show that the principal workmen were accustomed to perform their labors in a sitting posture. In this latter shop they are pleasure-carriage-makers, which is shown by a four-spoked wheel hanging on the wall. Having said thus much concerning the body, &c., we may make some general reflections regarding the wheels.



BENDING THE TIMBER FOR A WAR-CHARIOT.

It must be admitted that, when compared with the productions of more modern times, they were weak and inefficient. As in our specimen on page 42, the war-chariots of Egypt appear to have had six spokes in each wheel, but we have observed that in the private carriages of that same country they are represented with only four. We account for this by supposing that in war, where success depended in a great measure upon the stability of the chariot, a stronger wheel was desirable than in a vehicle wholly designed for domestic purposes. These spokes, too, appear to have been made disproportionably light at the "tang," so that they must necessarily soon have "given out." This was evidently foreseen, and in order to be, as our friend Windust would say —"*Nunquam non paratus*"—always prepared for an emergency, precautionary measures are resorted to, to provide against the dangers attendant upon an accident, and for securing the safety of the king's life. For this purpose an extra chariot was always taken along when on an expedition, or going into battle, so that, should one give out, he would have a second at hand, into which he could mount and thus secure his personal safety.

Above we give a representation of the process of manufacturing the different parts of a war-chariot, which is represented by the wheels, having six spokes figured therein, hanging upon the walls. Also a representation of the manner of dressing up the stuff, &c. The position taken by the man sitting down would subject any journeyman carriage-maker to the liability of immediate discharge in our time, and justly, too, as he is the personification of laziness.



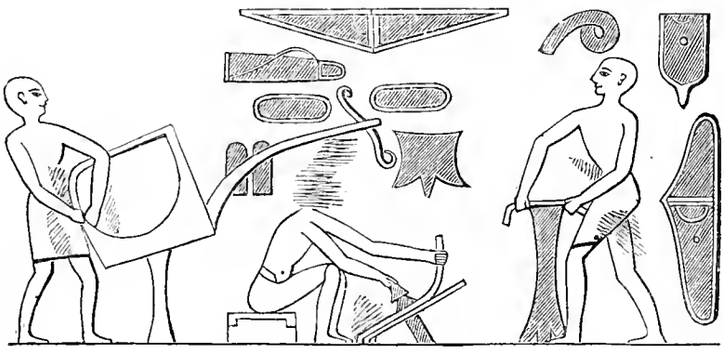
RIMMING A WHEEL, AIDED BY STEAM.

This "masterly inactivity" is still more evident in the next figure, where two men are at work, probably rimming a wheel, while on the walls are suspended other parts of a chariot, in process of construction.

There is one very singular feature about the wheel illustrated in our last chapter, and that is, that whilst the *rim* proper appears to have been bent, the *tire* was "worked out" from a solid piece of wood. As has been previously observed, on account of its scarcity, wood was a very valuable article among the ancient Egyptians, and except for some special reason the ancient chariot-maker would not have wasted his stock in "working out" his tire instead of bending it. This stock had to be all imported, great

quantities of it from Syria; and rare woods formed a part of the tribute imposed upon foreign nations. So highly were some descriptions of wood appreciated for ornamental purposes, that painted imitations were made for the poorer classes who could not afford the real article, and the doors, windows and panels of houses, boxes and various kinds of wood-work, were frequently of cheap deal or sycamore, stained to resemble the rarest foreign woods. In view of these facts, we infer that the Egyptians had found from experience that a *bent* wooden tire was not as durable as a worked one, and that the waste in timber was more than compensated for, in the advantages gained for their wheels.

The workmanship of the wheel illustrated in our last number, although, when contrasted with the productions of modern times, rather rude, still was very creditable to Egyptian ingenuity, and proves to us that they were far in advance of their Asiatic rivals in this particular branch of the arts. This will be more plainly manifest when we come to consider the Assyrian chariot in a future number.



BINDING OR TRIMMING A CHARIOT BODY.

In the ornamental trappings, hangings, and binding of the frame-work and cases, leather was principally used, dyed of various hues, and afterwards adorned with metal edges and studs. The Egyptians themselves have not failed to point out what parts were the peculiar province of the wood-workman and of the trimmer, and, lest it should not be sufficiently evident that the trimmer was engaged in cutting and bending the leather for this purpose, the artist has distinctly pointed out the nature of the substance employed, by representing an entire skin and the soles of a pair of shoes or sandals, suspended in the shop; and we find a semi-circular knife used by the Egyptians to cut leather, precisely similar to our own, even in the remote age of King Amunoph II., who lived fourteen centuries before our era.

The harness of curricles and war-chariots was nearly similar; and the pole in either case was supported on a curved yoke fixed to its extremity by a strong pin, and bound with straps or thongs of leather. The yoke, resting on a small, well-padded saddle, was firmly fitted into a groove of metal; and the saddle, placed upon the horse's withers, and furnished with girths and a breast-band, was surmounted by an ornamental knob, and in front of it a small hook secured the bearing-rein. The other reins passed through a thong or ring at the side of the saddle and thence over the projecting extremity of the yoke; and the same thong secured the girths, and even appears to have been attached to them.

In the war-chariots, a large ball, placed upon a shaft, projected above the saddle, which was either intended to give a greater power to the driver, by enabling him to draw the reins over a groove in its centre, or was added solely for an ornamental purpose, like the fancy head-dresses of the horses, and fixed to the yoke immediately above the centre of the saddle, or rather to the head of a pin which connected the yoke to the pole.

The traces were single, one only on the inner side of each horse, fastened to the lower part of the pole, and thence extending to the saddle; but no exterior trace was considered necessary, and no provision was made for attaching it to the car. Indeed, the yoke sufficed for all the purposes of draught, as well as for backing the chariot; and, being fixed to the saddle, it kept the horses at the same distance and in the same relative position, and prevented their breaking outwards from the line of draught.

On important occasions the Egyptian horses were dressed out with fancy ornaments; a rich striped or checkered housing, trimmed with a broad border and large pendant tassels, covered the whole body; and two or more feathers inserted in lions' heads, or some other device of gold, formed a crest upon the summit of the head-stall. But this display was confined to the chariots of the monarch, or the military chiefs; and it was thought sufficient in the harness of other cars, and in the town curricle, to adorn the bridles with rosettes, which resemble those used in some countries at the present time. S.

SOMETHING ABOUT WHEELS — THEORETICAL AND PRACTICAL.

(FIRST ARTICLE.)

BEING somewhat practical in the business of making wheels, and, withal, a close observer of the wear and tear of the article in city and country, we feel ourself qualified to speak advisedly on this subject. At the outset, we premise that although others may differ from us in some respects, yet it must be conceded in this, that the first and most important thing in manufacturing wheels is to have "the stuff" of good quality and well-seasoned. Without such stock, we can never reasonably expect to give satisfaction to the public.

We do not expect in this series of articles to do away with the instruction the employer engages to give his apprentices, nor do we expect to teach every old and practical hand the whole art of wheel-making, but, should we succeed in throwing such light upon this subject as shall in any way promote the production of a better class of wheels, we shall feel very much gratified, for, as has been justly said, should the wheels fail, the whole carriage must be condemned. The wheels of a vehicle are the parts which, if any, should receive the largest share of pains in their manufacture, and the material should have at least twelve months to season in, before it is worked. We shall begin with

THE SPOKES.

Not many years since, as every old wheelwright remembers, every wheel-maker was obliged to get his spokes out by hand, and a toilsome and laborious job it was; a task which the workman of the present day scarcely realizes. Now they come to us "ready dressed," and we have but little labor left to do in preparing them for driving. This circumstance, in a measure, will excuse us from unnecessarily entering into any further remarks about getting them ready, but, as silence upon this point might be construed

into a lack of completeness in the treatment of our subject, we are induced to be more minute than we otherwise should.

We shall, then—supposing it to be some cold and frosty morning in December—take you into "the woods," with axe, cross-cut saw, and *beetle* and wedges, prepared to fell the stubborn oak, whose now leafless branches have withstood the tempest and the storm for scores of years, and might for a century longer, would you only *spare that tree*. Into the woods, did I say? Let me qualify the invitation—into that open field where a loamy soil, the free air and sunlight influence have contributed to toughen the fibres and perfect the growth of the "solitary," whose branches have lodged the songsters and shaded the overheated cattle of many summers. But why do you speak of oak particularly? Because we are *now* looking after timber for a business or heavy wagon, which demands it, as preferable to all other. Having found what we want, and felled it—with a saw, if possible, as the part nearest the earth is the most valuable for our purpose—and cut it up into proper lengths, let us go to work and split it into the requisite size for our spokes. A little care is necessary at this juncture, to avoid getting our spokes out so that they come under the term denominated "bastard." To illustrate our meaning, and at the same time to instruct the reader, let me present you with the accompanying diagram.

Fig. *a* is an end view of a section of log laid out to be rendered into spokes by splitting.

Fig. *b* designates a triangular piece of the above log.

1, 2, 3, represent pieces marked out for *three* spokes respectively.

4 represents a "bastard" laid out spoke, which some *blockhead*, who "knows enough without taking *our* Magazine," is supposed to have done.

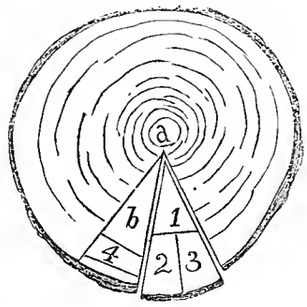


Fig. 1.

The spoke got out in this latter way is very liable to split under pressure, when made into a wheel, and should therefore be rejected, and will be by the mechanic who understands his business thoroughly. This kind of spoke is frequently found among those supplied us by the vender, who is a better farmer than mechanic. After these "spokes in the rough" are riven, we recommend that they be piled—technically, "stuck up"—under some shed, open to the air, crosswise, until they are well seasoned and fit for use.

Before we "work" these oak spokes and while they are seasoning under our shed yonder, we will visit the merchant who deals in the "ready turned," and make an extempore speech on spokes in general, and *hickory* spokes in particular. The most popular timber for wagon and cart spokes in America was formerly the oak. Twenty years ago such a thing as a hickory spoke was not even thought of. Its liability to perish under the weather's influence would have been thought a sufficient reason for discarding them altogether. And so it would be judged of now, did not modern lightness of build require a wood of stiff quality, and modern taste and neatness demand a yearly repainting, which serves to preserve the spoke from the decay to which it would otherwise be liable.

In our experience we have often found a spoke inclining to bend when perhaps its neighbor stood as "stiff as a rail." How many times has the smith been blamed for this very thing after having hooped the wheels, when, if the truth was known, he was "more sinned against than sinning"—it being the wheel-maker's fault. Some description of hickory is very much inclined, as the stick is bent, to retain a crooked position. By proving every spoke, by taking it by the ends and resting its centre on the vice and pressing your weight thereon, such spokes are readily detected and should be condemned as unfit for good wheels. By so rejecting them, you avoid the vexation and trouble of being obliged to take off the tire, putting in a new spoke and resetting the tire, and thereby adding additional costs to the manufacturer and probable injury to the wheel.

To all such as would have good work, we advise purchasing the "extra" article, as the difference in the costs (say half a cent each,) is more than saved in the difference between the spokes rejected in the "extra" and "ordinary," respectively, in assorting, when you come to use them.

Having selected the best spokes ready dressed, the next thing is to clean them off, and fit the tenon for the mortise in the hub. Formerly, when a wheel was considered the better the more it dished, it was customary to make these tenons very tapering edgewise. Such a form is very prone to cause a wheel to "dish" forward. Under a hoop tire it would not be tolerated at all, and it would only do under a stroke tire, as formerly. Recently, the fault has been in that we have not given our tenons as much taper as the requirements of durability demanded, so that *our* wheels, made too straight at first, have dished backwards afterwards, and no subsequent doctoring has ever served to cure the mechanical defects arising therefrom. We think, after experimenting many years, that, for all light carriage wheels, one-sixteenth (large) of an inch taper is amply sufficient for any tenon, and this tenon should be driven into a mortise so formed as that the more it is driven the harder it presses at the point, edgewise. Spokes that are properly driven, and are tightest at the bottom of the mortise, will never "work" in the hub, and are consequently very durable, and satisfactory to a purchaser. We are happy to find that the craft are improving in this respect, and that our light wheels of this day are found answering all the purposes the most particular and nice customer can reasonably ask.

We have never seen used "spokes of chestnut, resembling the chestnut of France," which, our Parisian cotemporary tells us, our "Oriental" neighbors of New Orleans are in the habit of putting in their work, and consequently cannot say how they would answer, but leave them to refute the slander, if such it be; for which purpose we offer any knight of the quill, who desires a tilt with our Gallic friend, the free use of our columns. More anon. S.

The Saw and the Saucer.—"I come for the saw, sir," said an urchin. "What saucer?" "Why, the saw, sir, that you borrowed," replied the urchin. "I borrowed no saucer." "Sure you did, sir—borrowed our saw, sir." "Be off, I never saw your saucer!" "But you did, sir—there's the saw, sir, now, sir." "O, you want the *saw!*"

"His Little Failings."—"My James is a very good boy," said an old lady, "but he has little failings; for none of us are perfect. He threw the cat in the fire, flung his grandfather's wig into the cistern, put his daddy's powder-horn in the stove, tied the coffee-pot to Jowler's tail; but these are childish follies—he's an excellent boy, after all."

The Home Circle.

For the New York Coach-Maker's Magazine.

"LOOK BACK!"

BY MISS LAURA GROSVENOR, OF TERRE HAUTE, INDIANA.

CAN the shadow deep, that resteth on thy brow, be flung by care?
No! methinks it must have fallen from the dark curls clustering there.
Fling them back! Ah, still it lingers! Now, my happy task shall be
To dispel the gloom that gathers, O! my sister-friend, o'er thee.

Thou dost remember the April morn, when leaf and flower-bud swelling,
And gushing song of bright-hued birds had lured us from our dwelling,
Within the city's dust and din, and turmoil and confusion,
To find upon the wood-crowned hills some hours of sweet seclusion.
I had not thought to wander far, but *thou*, my friend, wast leading,
So cheerfully I walked with thee—time, distance, all unheeding.
And thou didst choose the hill-side road, where, care-free and light-hearted,
We two had wandered, hand in hand, full oft in years departed.
We gathered flowers just where they grew so fair in the olden time,
And wove beneath familiar shade, not only wreaths, but rhyme;
Watching a craft come speeding down "The Beautiful River's" tide,
We said, "O'er Time's fast-flowing stream thus rapidly we glide."
Forgotten now our simple rhymes—our flowers have lost their glow,
Just like the beautiful hopes that seemed so bright to us years ago;
But those rosy wreaths, like the garlands of Hope, we twined in Life's young day,
Had each a mission which each fulfilled—then passed in its sweetness away.
As *thou* didst lead me then along that old familiar road,
Beside which, in resistless tide, a thousand memories flowed,
Didst gather flowers whose perfume sweet refreshed us on our way,
So *I* would lead *thy* steps along that shining track to-day.

From one hill's high summit gazing, seemed another still more fair,
Quick we crossed the vale dividing—climbed—and stood in triumph there.
From the brooklet in the valley rose to us a joyous strain,
Music we had loved in childhood! should it call to us in vain?
Spoke we then in chorus, "Never shall a voice unheeded be,
That from out the Past can summon back my early youth to me.
Even now my cheek is flushing as with childhood's rosy glow"—
By the brook already standing, to its waters bent we low.
'Twere a weary task recounting all the winding paths we trod,
As with light, unwearied footsteps gaily flew we o'er the sod.
But we saw, upon emerging from the shadow of the wood,
"Cloudy pillars" in the distance, marking where the city stood;
Marking where the many thousands toiled in weariness *for life*,
And another day would find *us* busy in that scene of strife.
Then our hearts within us sickened, faltering grew our steps and slow,
Path so rough as that seemed to us, may our future lives ne'er show.
Dark and heavy clouds hung o'er us, boding that a storm was nigh,
But the hill-tops glowed in sunlight—'twas, you know, an April sky.
Spoke one then unto the other, "Though above the storm-cloud lowers,
Let us not forget that sunshine gladdened all the morning hours;
Even now 'tis glancing brightly over all our distant track,
Lighting up those darkened valleys, sister mine, *look back! look back!*"
"Sure," we thought, "to mortal vision ne'er was given fairer sight,"
As we stood *within the shadow, looking back* upon the *light.*
Then with hearts refreshed and cheerful, all our weariness forgot,
Walked we on beneath the shadow, but its gloom we heeded not.
And we vowed unto each other, as we homeward bent our way,
From the Future's light or darkness, to "look back" upon that day.

There are moments in life when the Future appears
To offer but sorrow—the Present, but tears.
Is there one has not proved it so? happy is he!
They have often been ours, and *again may* be.
O! *then*, let us turn us in gladness away
From the dark-tinted Future—the clouded To-Day,
To the picture that gleams from the *Past* on our sight,
And, *standing in shadow*, "*look back*" *on the light.*

JUST THE RIGHT AGE.—Marriageable young women are in good demand out West. A Yankee, writing from that section to his father, recently, says: "Suppose you get our girls some new teeth and send them out."

After getting the girls ready, the father writes to his son, to let him know that they are coming, and says:

"With their *new teeth*, and in their *new rigs*, you would not know them. They appear to be *only* about eighteen."

For the New York Coach-maker's Magazine.

CHARLES ARCHIBALD HENDERSON;

OR,

THE SUCCESSFUL INVENTOR.

(*Concluded from page* 50.)

CHAPTER III.

"The love of gold, that meanest rage,
And latest folly of man's sinking age,
Which, rarely venturing in the van of life,
While nobler passions wage their heated strife,
Comes skulking last, with selfishness and fear,
And dies collecting lumber in the rear."

MOORE.

THE moonlight of midsummer shone peacefully down on the dark figure of Henderson, sitting in the deep recessed window of Leaf Cottage, and the light one of Nellie, standing beside him, her white hand wandering playfully among the dark locks of his ebon hair, lifting here and there, and pulling out a thread of silver. "In thy hair the almond-blossoms whiten." "Yes, Nellie, my hair is gray, but not with years," and a deep sigh escaped him. Nellie looked at him; she had never seen him so dejected. "What is it, Archie? What makes you so sad to-night?" "Nothing, dearest; at least, nothing that you could help or I would tell you." "*Do* tell!" He looked at her innocent face in its sweet repose; he could not bear to disturb its tranquillity with his trials, so he only answered, "Hope deferred." "The machine?—cannot you succeed with that? Do tell me," and she looked coaxingly into his eyes. "No, Nellie, I cannot succeed; for the second time I am disappointed." "Why?" He hesitated. Nellie urged. "This time the means are wanting." "Could you not borrow, could you not obtain them in any way?" "No, Nellie, I have no credit, no friends." "Archie!" was the low, reproachful response. He drew her on his knee, gathered her to his heart, bent low over her nestling head in silence. When he raised his head, tears glistened among the bright curls of her chestnut hair. "Mother and I, Archie! what are we, then?" "You are my other self, your mother and mine—for she will be mine—is a widow. But don't distress yourself, dearest, I shall only have to work and wait longer, that's all. Time, patience and labor are necessary. I had hoped to remain here (he felt her start, and a tremor went through his own frame,) till I could finish my machine, but I paid out my board and doctor's bill to-day, and I find that I have little more than enough left to pay my fare to a neighboring city, whither I must go and work, probably—a—year—(no Nellie! oh! do not start from me,) before—before I can obtain means for its successful accomplishment. It is the idea of this separation," and he held the little form now shaking in his arms closer to him, "that presses so heavily upon me, together with the knowledge that I have not yet, in spite of all my efforts, succeeded so far with my machine as to warrant the certainty of success. I thought I had some time ago, but the part I depended on—the completing part—which, though made for another, I yet thought would fit this, has not come up to my expectations, and I am baffled again. Once, Nellie, in my home beyond the sea, where a mother as tender and devoted as yours cared for me, I conceived, planned, and, with the assistance of another, finished a machine like this under way now. That other was false; he deceived me. I knew when I engaged with him that he was neither inventive nor ingenious, but he was a good workman, and I believed him true as a man. He had more means laid up

than I, for he ever strove to make money, hoarding up all that I expended for books or for my mother. He professed great friendship for me, even professed to have inherited the old friendship of our fathers; so, after long study, deep research, and patient investigation in my ardent desire to do something to benefit my kind, when at length I struck upon the right track, I took him into partnership. But for the angel the subsequent train of events has brought to bless me in my loneliness, I should be tempted to curse the day I did so. However, let me not anticipate.

"I planned, arranged, commenced; he assisted me to work out. It took three years of united labor, during the intervals of relaxation from a laborious trade, to complete that machine. I had no sort of doubt as to its success; its value was intrinsic apart from the pecuniary profit that must necessarily accrue from its operation. It needed only to be tested to secure a welcome reception everywhere. Well, we worked on hopefully till it was finished. The night before it was to be taken away to the Patent-office, I returned to our little workshop, screwed off a small part and carried it home with me, intending to stamp my mother's name (who had gone home to Heaven in the mean time,) upon its surface. I did so, and when I went over with it early next morning, prepared to start for our journey to London, my beautiful machine was gone! lost to me forever! My companion had absconded secretly in the night, taking it away with him. He was to have received half the profits in our agreement; but this did not satisfy his sordid soul, he wanted all, as well as the credit of the invention. He was foiled, as he deserved to be, not by the merest chance, but by what would appear the smallest link in God's connecting chain of circumstances. The part left, though small, was important. He could not construct its counterpart, and upon this depended the movements of the mainspring of the machine. He had managed his flight with a cunning and precaution that for a time precluded all possibility of search. But I found his clue at last and traced it. I followed him to this country, to this village, but no further. I have lost the track here, and, despairing of discovering him, I determined to commence, while yet my means lasted, another exactly like it, as I thought; but there must be some slight discrepancy, or the part I brought with me would have answered. Well, I will not repine. But do you wonder that I feel again, at this moment, all the old heart-sickness that came over me that morning, when I found myself deceived, deserted, robbed! The blow that struck me down then on the very pinnacle of success fell heavily, and, oh! Nellie, I feel its weight now. I feel no strength, no life in me to get up and struggle on again. The idea of this separation, this long waiting and watching for the success that never comes, is terrible. I do not complain; but, oh! Nellie, the Almighty has dealt very bitterly with me." "Archie," interrupted Nellie, starting up suddenly, as if struck by a new thought, "there is a machine up in our garret, left here by a young man who came to us two or three years ago, when mother kept boarders, and died here, in the room overhead, of typhoid fever. Suppose we go up and look at it. Who knows but it might aid you with your machine; at any rate, it is of no earthly use to us. The poor man's other effects were sold, and they scarcely realized enough to pay his funeral expenses; but this machine was considered useless lumber and conveyed away to the garret, where it has remained ever since." She led him to the little west room in the garret, threw open the door, and, placing the light on the window ledge, removed the old strip of green baize that covered the machine, and commenced dusting it. Henderson neither spoke nor moved, he stood transfixed before it. Nellie looked up inquiringly. How radiant his face! the glad light of sudden joy shining all over it, his deep eyes glistening like stars. "My own invention!" broke out the deep, rejoicing voice. "Nellie! darling, it is my own, my very own! Success, at last, thank God! Success for you, for me, for mankind. Kiss me, dearest, I owe it to you, my precious darling; no separation now, forever and ever. Oh! Nellie, this moment atones for all I have suffered; my gentle, God-sent angel!" and Nellie was caught and strained to the triumphant heart, bounding in his deep chest, in an ecstasy of delight.

CHAP. IV.

"To them, his heart, his love, his griefs, were given;
But all his serious thoughts had rest in heaven.
As some tall cliff, that lifts its awful form.
Swells from the vale and midway leaves the storm,
Though round its breast the rolling clouds are spread,
Eternal sunshine settles on its head."

GOLDSMITH.

I cannot follow Henderson, step by step, in his efforts to introduce his new invention. It would be too tedious, and, besides, it would make this chapter too long. I only know that it has succeeded to a charm, and I know also that, unlike a great many other inventors, he is reaping the well-earned reward of his success. Without defining, I leave my readers to conjecture as to the name of this invention of Henderson's, by saying, that his toils, anxieties and fears, have ended in bestowing upon the female branch of the human family an auxiliary, the value of which time alone can duly estimate.

Our fair countrywomen cherish more real respect and admiration in their secret hearts for this one unpretending man, than for all the warrior heroes that ever tracked their way through Europe in blood and tears. This much, however, I will say: in the centre of A—— stands a handsome two-story double house, handsomer by far than any about it, with its full length windows and pillared piazzas, standing as it does amidst flower-bloom and clustering vines, under magnificent maples. Sometimes, as I pass by in the mornings, I hear sweet young voices waking the stillness of the grounds with their innocent mirthfulness, and often in the quiet summer evenings, when all is hushed around, a lady's exquisite voice, accompanied by the piano, floats out through the open windows, ascends among the maples and echoes softly over the moonlit lake, and I know that the voice is Mrs. Chas. Henderson's, the sweetest voice in all the village—the sweetest, holiest voice, her husband thinks, he ever listened to, except the one now tuned to harmony with the golden harps of heaven. Chas. Henderson reverences the memory of his mother, and through her example he reverences women. What he now is he says she made him, for she ever taught him to pray to God to be guided in all things aright. She early taught him the whole duty of man: "To have a conscience void of offense toward God and toward man." She moulded his life to a purpose, and encouraged him to persevere till he accomplished that purpose, and he only regrets, in the depths of his affectionate heart, that she did not live to realize and enjoy his success. God bless the Christian mother! the only mother who can train the young immortal spirit aright.

But there is another mother in his beautiful home who almost worships him. A venerable, silver-haired lady who tells you with smiles in her eyes, as she gathers her grand-

children about her, that the void in her heart left by the beloved ones gone before is filled up now, that she has nothing more to wish for; and it is evident that she rejoices in her children and grandchildren "with exceeding great joy."

Poverty could not degrade, neither has prosperity spoiled Henderson. He is the same tender, truthful, earnest-hearted man that walked up the main street one beautiful April evening more than fifteen years ago. Modest, unobtrusive, as when he sought the most obscure corner of the church to worship, only happy now, happy in having the means to do good. No beggar ever turns unrelieved away from his hospitable home, and every child of want, in our village, knows something of the good that flows freely from his invisible but effectual hand. Content to do good in a quiet way, he has constituted himself only the Roscoe of our little village, where free-schools, libraries, and mutual improvement associations have already sprung up and become established. Capable of spreading good seed broadcast over the land, if he were less diffident, he has concentrated his efforts here with us at A——, shedding the sunshine of his large, liberal and loving spirit over us all like a blessing.

There is only one thing connected with him that the people of A—— do not like, and that is the most distant allusion to the time of the stranger's first appearance among them. They have profited by the lesson taught them, and are willing to follow, if need be, the example of the good old patriarch in the plains of Mamre. The once lonely and neglected stranger has become the great man of the village, and there is not a man, woman or child in A—— who does not feel honored and exalted by the acknowledged friendship of Charles Archibald Henderson.

Pen Illustrations of the Drafts.

THE WOOSTEREE.

Illustrated on Plate XII.

SEEING a vehicle of this description always fills our mind with reminiscences of the period when the writer, as Shakspeare has it, "was a whining schoolboy, with his satchel and shining morning face, creeping, like a snail, unwillingly to school," (except the *unwillingly*, to which we plead not guilty) trying to learn "how to shoot"—of those earlier days, when, among those pleasant hills and picturesque dales which abound in the "land of steady habits," we spent the sunshine of our life. We recollect well the sensations we experienced as Squire Tacklethem or Deacon Stuckup, or "uncle Joe and aunt Molly" rolled past us in "a cheer," on the way to or from "meeting;" and how, with others, we, a poor boy, were left to "go *hum*" on Shanks' mare, wondering in our own mind if we should ever be able to keep a carriage. But,

"*Qui fit, ut nemo contentus vivat?*"

This old, time-honored chaise, anciently called a "cheer," which is peculiarly American, unlike many other favorites of a former day, although gone into disuse somewhat, is still found, with some modifications, in Boston and some other towns of that old commonwealth, Massachusetts, and among some few of her descendants in the scattered towns of other States of this Union, where pill-venders flourish. For the purpose of nursing this antiquated respect and love for the old vehicle, the article we illustrate has been gotten up, it being simply "the old cheer" with a newly-formed body, accommodated to the prevailing taste for a light style of work. Our draft is taken from "a Woosteree"—the propriety of the name with us is questionable—manufactured by Mr. David Daly, Brooklyn, N. Y., by one of the editors of this Magazine.

The light construction of the body is a great improvement over the old form, which was not only heavy in appearance, but was actually so in weight. As our draft is about the thing, and this style of carriage not difficult to build, we need not go into unnecessary details, further than to state, that the "Boston-springs" and the shafts are best made from lance-wood. Indeed, we do not consider that any other wood is a fit substitute for it.

THE HEARSE.

Illustrated on Plate XIII.

From an original design by JOSEPH IRVING, Bridgeport, Conn.

This is an original draft from the pencil of our friend, Mr. Joseph Irving—not *James*, as the compositor made us say in our last number—who accompanies his sketch with the following remarks:

"A hearse, above all things, is one of the most unpleasant jobs a coach-maker can have anything to do with, since it puts one in a very reflective mood when he sits down to design and study out a carriage which is to give him his last ride, provided he leaves the dimes behind to pay for it, on this side of the grave. With feelings of the above nature, I give you a hasty sketch of one with a round front. Too much carving and ornamental work on a job of this kind, I think, is quite inappropriate. The glass frames can be put in from the outside, and, if fastened with silver-headed screws, it would make a very good finish. As the undertaker generally gives the dimensions, as to depth, width, and length of the body when he orders one, and, as every customer has his peculiar ideas as to taste, &c., I need not enter more minutely into details. I could get up a much cheaper design, if required."

We have in our portfolio another fine draft of a hearse, designed by our friend, Mr. Bush, of the respectable firm of Jas. Goold & Co., of Albany, N. Y., which it will give us great pleasure to present to the public in an early number of this work.

For the N. Y. Coach-maker's Magazine.

CALASH COACH.

Illustrated on Plate XIV.

MESSRS. EDITORS—The accompanying design of a Calash coach possesses a few original points, in connection with the style, which are not very common. The bracket front, supported by a carved brake and standard, gives it a

very rich appearance. This front-brake is almost indispensable, since it receives the pressure and straining of the fifth-wheel, without injury to the bracket-front, which is supported by a light stay. For the front seat-irons I would suggest the following plan: Get a large, malleable iron collar and drill holes to suit the irons; then screw the irons into them tight, and afterwards bend and shape them as required. The collars turned and plated would give them a very finished look. The scroll work on the top of the shutter frames is intended to be open, with glass in the side, the object being to lessen the depth of the glass in appearance. The body can be made to swell back, *above the arm scroll.*

Joseph Irving.

Bridgeport, Conn., Aug. 3d, 1858.

Sparks from the Anvil.

THE CLIP KING-BOLT.

We imagine we hear, at least, a baker's dozen ask, in a single voice, what do you mean by a clip king-bolt? Well, we mean just what we say; and, to show you what we mean by the term, we have, for your gratification, had the *thing* engraved and presented to you for inspection.

It is intended to supply the place of the old-fashioned king-bolt in buggies and light work generally, for which purpose, as a substitute, it answers well, as it does not require a hole through the bed or axle, which has always cut away and weakened our axles just where the greatest strength is required. With this arrangement no transom-plate is necessary, as the lower or clip-end, *c*, with the clip-yoke, encircles the axle, when the nuts are turned up, with great firmness. The bolt at *b* passes through both the head-block and its plate, and at *a* is continued through the central bolt of the lower half of the front spring, above which it is secured by a nut, as seen in the figure. The whole makes one of the neatest couplings for the "cramp," or turning part of a vehicle, we have ever seen. Messrs. Stivers & Smith, of this city, are the first to adopt this plan, we understand, and we are glad to find "that any man is free to use this principle" without the danger of being sued for infringement of a patent. That which greatly recommends this plan over all others is, that it is never liable to rattle, and should it *ever* get loose it could easily be tightened, by screwing up the nuts at either end of the clip. Precaution should be taken, when the front is coupled, to rivet the end of the bolt over this nut above the spring, otherwise the nut *might* possibly work off by continual turning of the carriage.

☞ Should our friends be in want of bituminous coal for their forges, they will find *the* article, at extremely low prices, at Messrs. Felter & Bromley's. See their advertisement.

THE SUSSEX IRONSTONE.

Among the many strange industrial revolutions which have taken place in Great Britain within the last century, from the increased development of our coal-fields, and the application of machinery to manufactures, none is more remarkable—although perhaps less known—than the extinction of the iron manufactures of Sussex, which, in the 16th and 17th centuries, was foremost among the English counties producing that metal.

The strata containing the beds of iron from which the ore was raised in that county is the lowest formation of the cretaceous system—the "Hastings sands" of geologists. In mineral character they are principally siliceous sandstones, with occasional beds of clay and marl: their superficial extent is enormous, as may be seen by referring to any geological map—stretching from Kent across the entire length of Sussex into Hampshire. The whole of the eastern half of this track is ferruginous.

In the sixteenth century the iron-making of this district was at its height. In 1543, the first ordnance ever manufactured in England was cast at Buxted by Ralph Hogge. The site of his furnace, corrupted into "Huggett's furnace," by which name it is yet known, can even now be readily traced; and the following distich is preserved by the peasantry:

"Master Hugget and his man John,
They did make the first cannon."

Writing of this County, Camden says, "It is full of iron mines everywhere, for the casting of which there are furnaces up and down that country, and abundance of wood is yearly spent; many streams are drawn into one channel, and a great deal of meadow land is turned into ponds and pools for the driving of mills by the flashes; while beating with hammers upon the iron fills the neighborhood round about night and day with their noise. . . . . The proprietors of the mines by casting of cannon and other things get a great deal of money." Fuller, in his "Worthies of Sussex," observes that "it is almost incredible how many great guns are made of the iron of this county. Count Gondomar (the celebrated Spaniard) well knew their goodness, when of King James he so often begged the boon to transport them."

Judging from the remains of the furnaces and forges still traceable, the extent of this iron-producing county was really immense. It stretches south from near Tunbridge Wells to Beckley, within four miles of the sea of Rye, and also to within about an equal distance of Hastings; and west from the parish of Goudhurst, in Kent, to the very centre of Sussex. In almost every valley throughout this large area there are remains of the former iron industry. Large heaps of slag—locally called "cinders"—are everywhere met with, although of late years their bulk has been rapidly decreasing, from their being found to make excellent road stuff, which is very scarce in Sussex, the roads having to be generally repaired with the "Kentish rag." In Mayfield parish, on the road from Bibleham forge to the village of Mayfield, the road for some miles is made of imperfectly smelted slag; and large masses of "cinder," heavy with iron—stones weighing one to two hundred weight—are continually seen by the roadside and in hedges. In scores of valleys the remains of the old ponds and their embankments can be easily traced; several of these old sites of forges are now being used as corn-mills—for instance, the well-known Gloucester furnace, in

the parish of Lamberhurst, near Tunbridge Wells, so called from a visit paid it by Queen Anne and the Duke of Gloucester, celebrated for having been the place where the iron railing now round St. Paul's Cathedral was cast. I have altogether traced the remains of nineteen forges and furnaces in various parts of this district; and I by no means suppose that I have at all succeeded in tracing anything like the whole of those that originally existed.

In many of the old social remains there are also several curious evidences of the former seat of an iron district. The tablets in the churches and the gravestones in the churchyards are constantly formed of ponderous cast-iron masses; and huge iron utensils are often to be observed about the old farm-houses. The names of places, too, preserve the memory of these past works, and often guide us in discovering their ancient sites: scarcely a parish in the district but has several names made up of "furnace," "forge," and "cinder"—as *Forge Farm*, *Furnace Wood*, *Cinder Bottom*, &c.

The stone from which this iron was manufactured seems principally to have been a spathose ore, or an altered spathose ore, where the carbonate of iron has been converted into a hydrated peroxide. The percentage of this class of ore seems to be very good, some which I tried producing as much as fifty per cent.: a fair average would seem to range from twenty-five per cent. to forty per cent. Other classes of ores have also probably been used, for clay ironstone is often found, although, as far as I personally observed, generally poor; and siliceous ores occur in other places. But the spathose ore is certainly that most valuable—indeed, as far as I can judge, it seems the only stone existing in sufficiently compact bodies to be worked to profit.

That large bodies of this class of ironstone do exist in East Sussex is beyond all doubt; but whether they can be worked to profit is a question not yet ascertained, though the probabilities all seem to show that they can. The Tunbridge and Hastings branch of the South Eastern Railway runs through the heart of the district, connecting it on the north and south with the ports of Whitstable and Rye. The former port seems to offer considerable advantages for forwarding the stone to the iron districts of the north on moderate terms; inasmuch as colliers from these districts annually bring into it about 300,000 tons of coal for the supply of the counties of Kent and Sussex, who have now to return in ballast. Rye and Strood also import large quantities of coals from iron-making counties, and have no return cargoes. There can consequently be scarcely a doubt that from either of those ports the stone might be shipped to an inexhaustible market, at almost nominal freights.

The question is certainly one of very great interest, both to the land-owners of the county and to the iron-masters. The Weald of Sussex is peopled by a large and poor population, pressing heavily upon the rates for support even at the best of times; and the opening of such a field of industry among them would be an incalculable relief to the whole district. It is unnecessary to point out the importance which the development of such a field for the supply of ironstone would be to our iron-makers.—*The Pick and Gad, an English pub.*

"INDUSTRY must prosper," as the man said when holding the baby for his wife to chop wood.

Paint Room.

For the New York Coach-maker's Magazine.

ON VARNISHING.

SUGAR BRANCH, IND., July, 1858.

MESSRS. EDITORS:—As your columns are open to all who may feel disposed to contribute, I thought I would write a few lines on the subject of varnishing. Although a great deal has already been written both on varnish-making and varnishing, and although the subject has been the study of years, yet there are fully one-fourth of the coach-painters to-day who are as careless about the kind of varnish they use as if all they cared for was to get a job done, and out of the way, and they get their pay. Now, this is all wrong, as carriages are things which are more exposed to wind and weather than anything else on which varnish is put.

To find out the best mode of making varnishes suitable for carriage work has been the theme and study of men's lives, therefore, coach-painters should be more particular in selecting their varnish, and use none but a good article. They should buy it at some respectable manufactory where they warrant it, and then, should it not prove as represented, they may return it.

There are a great many coach-painters who are as ignorant of the spreading of varnish as a hog is of glory. If their varnish is a little old, or becomes thick from cold, they *will* thin it with turpentine; this is also wrong. Varnish, when it is chilled, should be warmed before it is used, and the paint-room should be kept well warmed during cold weather, or else it will be impossible to do anything like a decent job. If your varnish is too thick, from age, just add about a spoonful of *raw* linseed oil to a pint of varnish. This will make it work more free, and it will not set so quickly as when used without the oil. Now, if you are using old coach varnish, No. 2, it will set so quick that it will almost pull the bristles out of your brush. To remedy this, just add the oil, and you will find the difficulty removed and the gloss more brilliant, and, besides, it will last longer than if it had not been used at all. Having already extended these remarks too far, I will now close for the present, and at some future period will give you my mode of finishing a body.

GEORGE P. TINKER.

For the New York Coach-maker's Magazine.

STRIPING.

TUBE colors should always be used for striping; the actual difference in the cost is nothing, when the time spent in grinding dry colors is taken into consideration. Use sugar of lead for dryer; you can get it put up in tubes like your colors. In striping white, a very little Prussian blue or chrome green mixed with it will make it cover much better, and, when on, will not materially alter the tint. A white stripe, unless well covered and neatly done, looks very shabby, more so than any other. Never put white on green or brown! Blue, red, or white, looks well on black, orange, purple, or flesh-color, on brown, and for dark green, any light tint of the same color, four parts yellow and one part blue, for instance.

In striping carriage parts, try to preserve a uniformity

of design on every part. If you do the springs in "squares," put squares on the axles and spring-bars, and if you commence with fancy designs finish in the same manner; it looks bad to have part of a job covered with "flub-dubs" and the balance of it plain. Always aim at neatness and dispatch; it is a vitiated taste that admires glaring and elaborately twisted striping daubed over the entire surface of a carriage.

PUTTY.

In mixing this very necessary compound, use equal parts of white and red lead; the latter is of itself a powerful dryer, consequently, it will not require so much japan to dry the putty. It will work easier, is not so apt to swell or shrink, and will adhere to the wood with greater tenacity than if mixed in the ordinary manner.

VARNISH BRUSHES.

Many painters still persist in using the old-fashioned round or oval brushes for varnishing bodies; to all such we earnestly recommend a trial of *flat* ones. With them, varnish can be put on more evenly—can be "laid off" better and quicker, and with less risk of running. You can get them of sizes to suit all kinds of work. For English, or any light finishing varnish, that does not set quickly, badger hair is preferable; bristles, however, will answer for all purposes.

WORTH KNOWING.

After sandpapering work preparatory to applying the color, it will be found more than worth the trouble to rub the surface thoroughly with a handful of curled hair; it removes lead and dust that would otherwise adhere, and adds additional smoothness to the surface. Try it!

NEATNESS AND ORDER.

The paint-shop should always be kept as clean as the parlor of a tidy house-keeper. Dirt engenders laziness and carelessness. Keep a good supply of brooms on hand and use them every morning. Have everything in order about your bench. Arrange your cups nicely on the shelves. See to your stone, pallet knives and paint-mill, that they are clean. Attend to your brushes, observe that they are submerged in the water sufficiently to keep them from getting hard. Have an eye to your pencils, colors, varnish, tools, &c.; all this care is absolutely necessary, to guard against the ignorance or negligence of apprentices—not all of them, however, for I have seen those who were patterns of neatness and order.

ORNAMENTING.

As much light on the subject of ornamenting will, doubtless, be shed through the columns of this Magazine, it may be well, by way of preparation, to enumerate, for the benefit of beginners, the various tools, colors and utensils, used by ornamenters. Every painter is, no doubt, familiar with the peculiar shape of the artist's pallet, so we will only say that it is necessary to have one, together with two small tin cups to fasten on it, as receptacles for oil and turpentine; these can be procured at any painters' furnishing establishment. The pallet rests on the thumb of the left hand, leaving the fingers free to grasp the rest-stick. The next thing in order is the pallet-knife or spatula; this should be of steel or ivory, blade about six inches long and one in width. Then come the pencils! For small panel-ornaments camel hair is preferable; it covers better, and is easier to manage than sable. Such is our experience, at least; but it may be, after all, a mere matter of choice. A quarter of an inch is long enough for pencils to be used on fine work, such as crests, animals, &c. Select those having fine points and free from ragged hair; for the lights and the most minute parts of your work, cut them down to less than half the original thickness. Have separate pencils for every tint employed. Use handles (or holders) at least eight inches long, you will have more freedom with your wrist than with short ones. When done with your work, clean your pencils thoroughly in turpentine, dry them with a piece of muslin, and grease the hair with fresh lard or tallow, always drawing them to a point between your finger and thumb.

We will now proceed to enumerate the colors usually employed in ornamenting; always get "tube colors," they are sold by color-men and druggists generally. These colors are fine in quality and well ground; they are as follows:

Flake or Crimnitz White.	King's Yellow.
Chrome Yellow, No. 1.	Naples Yellow.
Chrome Yellow, No. 2.	Roman Ochre.
Orange Yellow.	Chrome Green.
Indian Red.	Emerald Green.
Vermilion.	Distilled Verdigris.
Raw Umber.	Raw Sienna.
Burnt Umber.	Burnt Sienna.
Permanent Blue.	Prussian Blue.
Ivory Black.	Crimson Lake.
Vandyke Brown.	Scarlet Lake.
Yellow Ochre.	Asphaltum.

Sugar of Lead.

The last of these is a dryer, and may be mixed with any color. Asphaltum, emerald green and distilled verdigris are transparent colors, and are only used for "glazing," that is, for imparting additional depth or brilliancy to parts where it is needed. Glazing is applied after the colors are dry; being, as before stated, transparent, the lights and shades show through, the one with a subdued lustre, and the other with increased depth. This process adds much to the beauty of a design, as it imparts an artistic finish and tone to work that would otherwise look very common. A correct knowledge of the laws of light and shade is, however, necessary, in order to "glaze" successfully.

Asphaltum is also used for shading gold-leaf work—it makes a rich brownish tint. In using it for this purpose, use turpentine to thin with. Gold leaf, when shaded in this manner, can be stained a rich crimson, with lake, or a brilliant green, with distilled verdigris. Allow the asphaltum to dry before you apply the lake or verdigris.

JAS. SCOTT.

A NEW EDITION OF THE JUNE NUMBER.

NOTWITHSTANDING our expectations, that the fraternity would require a large edition of the "New York Coach-maker's Magazine" to supply their wants, and that we thought we had commenced with enough to meet all requirements, we found out, very soon, that we *must* actually reset and print another edition, which labor, at considerable expense, we have had performed, so that *now* we are able, we trust, to meet any further orders. But, as delays may disappoint you in getting a complete set, we advise all who intend to have this work to send in their orders immediately, as we may not ever print a third edition.

Trimming Room.

GEOMETRY OF CARRIAGE TOPS.

M. G. TOUSLEY, OF NEW YORK, CONTRIBUTOR.

In consequence of the author's more general connection with this work, he had hoped to have avoided the labor of department writing, for the present, at least, having secured the aid of several able contributors to furnish department matter alternately; thus giving our readers the benefit of a new writer every month. But his absence from the office on an extended tour among the craft prevents him from arranging contributions, and the impatience of patrons for the immediate commencement of the square-rule series, has contributed to hasten his appearance as a department writer. The same variety of authorship, which has characterized the preceding numbers, will again be resumed upon his return. In the interval, contributors will continue to send their department matter to the office without waiting for a second or even a first invitation, that it may all come to hand in time to be arranged and corrected for the press at the first opportunity. This series is intended as an accompaniment for the forthcoming lessons on "Geometry of Carriage Architecture;" hence the name, "Geometry of Carriage Tops."

FOUR FEET RULE (TO HALF-INCH SCALE) FOR MEASURING BOWS, ETC.

LIGHT WAGON TOPS.

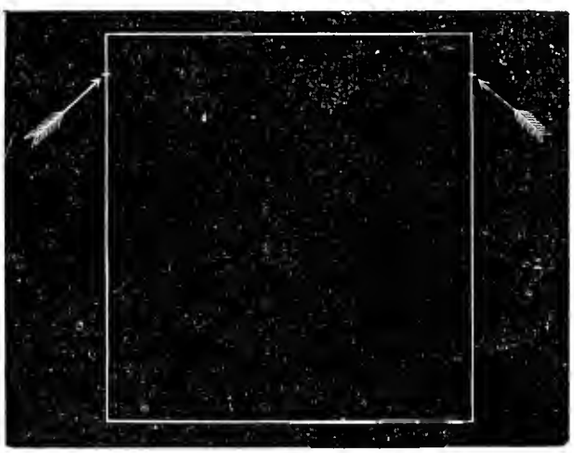
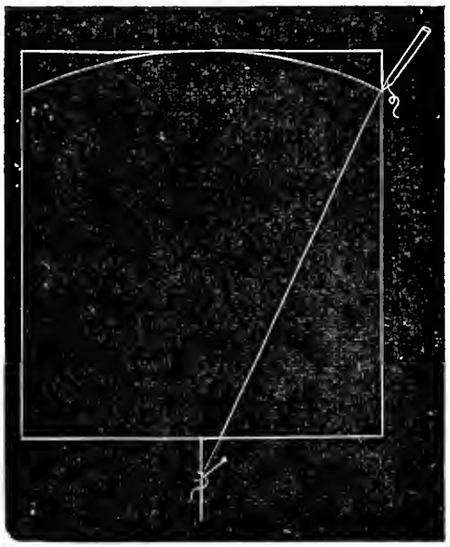


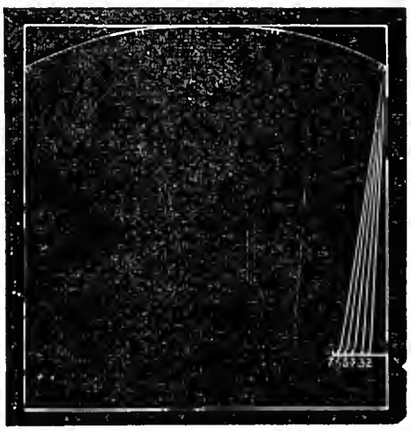
DIAGRAM FOR SETTING BOWS AND CALCULATING TOP WORK.—SKELETON NO. 1,—THE SQUARE.

So far as the simple operation of top-setting is concerned, the length of bows, &c., can be obtained about as correctly from a scale-draft as from one of the full size. But, for carrying out the rule on the entire top, a full-sized draft is much more convenient. The pupil will then proceed to draw a full-sized draft upon the wall or door of the trimming-room—height of square, three feet nine inches; width, say three feet six inches, or the usual width of ordinary tops. After the square of the scale is drawn, the next move is to lay off the drop of the back and front bow, by measuring from the top down, say four and a half or five inches. The lines are crossed at the back and front, as indicated, which gives the points from which the sweep is drawn.



SKELETON NO. 2,—OBTAINING THE SWEEP.

The sweep of the top is then drawn from the points indicated on the first square, by attaching a piece of twine at a pivot point sufficiently low to bring the curve inside of the square.



THE FINISHED SCALE.

The curve must then be divided into three or four equal spaces, to indicate the points from which to measure in taking the length of the bows. A horizontal line is then drawn, some five or five and a half inches from the seat line, and from six to seven inches in length. This is laid off into inches, commencing two inches from the back line, and the spaces numbered, commencing with number two to indicate the inches. The numbered spaces are intended to determine the pitch of the back quarter; as, by looking at the pitch of the rest-back, one can easily determine the proper figure to choose. *The draft is now finished.*

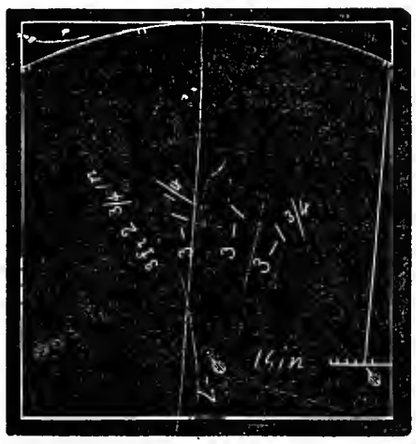
This simple scale will last as long as the wall upon which it is drawn remains, and will answer upon which to calculate any light top, no matter what its shape or proportions may be. The pivot point upon which the bow slats set can be located by taking its distance from the seat line, and from the back of the arm-rail; and that once determined, by sticking an awl in the ceiling at the proper place, the precise measure of each bow can be taken in an instant.

To alter the shape or size of the top, or to vary it in any manner from the proportion of the draft, can be done at a glance, by the free hand and a piece of chalk, which will rub off without difficulty.

APPLICATION OF THE SCALE IN MEASURING BOWS.

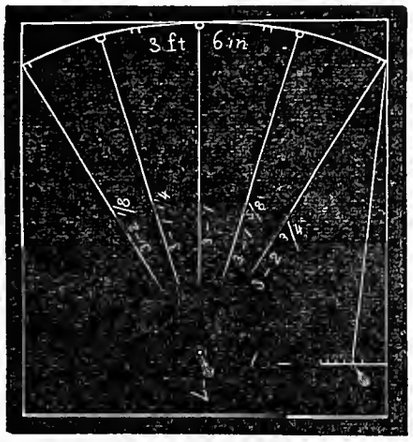
We will suppose that a stick seat is sent to the trimming room (we hope that it is only a supposition, but some trimmers do set bows, and all should understand it, theoretically at least, so we will proceed); the first point is, to glance at the pitch of the rest-back; it stands about plumb with the rail; so the least amount of pitch in the back quarter will make it stand clear. Three inches will answer. If the rest-back had plumbed back of the rail, we should have added at the rate of an inch for every one-fourth of an inch that it stood back; commencing, however, at two or two and a half inches, did the back stand more straight, as on a tight seat. But the law of proportion must be regarded, and, on seats which flare back, still more than this—four inches—would have been chosen, instead of three. The top is, however, a large one; at least, of good size—three feet six inches—so a half inch may be added on that account.

A glance at the seat has shown that three inches will give sufficient pitch to the back quarter to clear the rest-back, and accord with the general appearance of the seat; a half inch has been given for the size of the top. We will now place an awl, at three and a half inches pitch, on the scale.



A CALCULATION OF THE LENGTH OF THE BOWS, ETC.

The pivot is sixteen inches from the back of the seat; a corresponding dot is made on the scale; but, upon measuring from the seat-bottom up, we find that it is seven inches. An awl is then stuck at the real pivot point. Each bow can now be measured.



FIVE-BOW TOP.

The above draft explains itself. The four-bow top has been calculated, and all traces of it wiped from the scale on the wall, save the hole made by the awl in locating the pivot; a new pivot centre has been determined; some slight chalk dots made at the top, and a five-bow top measured.

The next chapter will illustrate a new way of measuring bows, by which they can be attached to the slats much quicker and more handily than by the ordinary process.

The New York Coach-maker's Magazine.

SEPTEMBER 1, 1858.

E. M. STRATTON & M. G. TOUSLEY, Editors.

TO READERS AND CORRESPONDENTS.

A SPECIAL NOTICE.—Our friends would oblige us very much, if, when they send us moneys in payment for club subscriptions, they would forward us a draft, payable to the order of the publisher, on some banking-house in this city. We do not feel like trusting the cash to *the honesty* of a certain description of clerks in a department where such carelessness is shown as under our present P. O. arrangements. We have recently lost two large sums, and nobody knows where they are gone to. Where the sum is merely three dollars, the risk is not so much, as the temptation to *steal* is not so great; yet even in that case it is better to get your letter registered, as that proves that you have remitted to us. In such cases we consider ourselves in *honor* bound to furnish the Magazine—not otherwise, should subscriptions be lost.

"S. N., OF MASS."—If you want "a good Hub-borer," we can recommend that of the Messrs. Dole, Silver & Felch, which we can supply at manufacturers' prices. See advertisement.

"R. A., OF VA."—Should you intend to compete for the next quarterly ornamental plate in November, you can gather, from an inspection of those in plate XI., as to the character of what we require. We have several now on hand, sent in by correspondents, such as enormous lions, eagles, *and other fishes*, which are more suited to the broadside of an omnibus than to the ornamenting of pleasure carriages.

"N. J., OF NEW HAVEN."—You will find your wishes anticipated, as to scale drafting, in this number. Mr. Irving, we trust, will make the matter so plain, that you "*will* be able to make your own drafts, if necessary." We thank you for your duplicate subscription "to our most worthy Mag."

"E. H., OF WILMINGTON, DEL."—Of course it will be necessary to reduce your drafts from ¾ to ½ in. scale, as our *determination* to have *ours* all uniform is very much like the laws of the ancient Medes and Persians—unchangeable. To the question, "if, after my designs are complete, will copies taken off on tracing-paper answer?" we say, yes.

"F. R., OF ——."—We do not know. That *veracious*, but dingy-looking, "abortion" *has cried itself to death*, for all we know. A copy cannot be found by us in all these "diggins." We judge that it has lost its vitality at the hands of its *wet*-nurse. We know this much, that its "family relations" have most of them *cut stick*.

"J. N. B., OF ALA."—We publish no charts for gratuitous distribution. The charts we get up are a separate affair; see terms in this number. If you get us up a club, as stated at page 17, you will be entitled to *that* gratuity.

"F. S., OF GA."—There are a great many like yourself, constantly writing for the information we only give where correspondents are regular subscribers to this Magazine. Besides, we expect those writing on their own business to enclose a stamped envelope.

THE SALE OF PATENTS.

THE patent laws of the United States were, no doubt, intended for a good purpose—for the protection of genius, and the nourishment of art. But designing men and unprincipled officials are fast bringing the whole system of Governmental protection into disrepute. The original object has been lost sight of, and the term "new" has eclipsed the idea of *useful*.

The main idea which seems to predominate among the sharp-eyed gentlemen of the Patent Office is, to gain funds for the General Government, but still to regulate the course of such erratic bodies as come within the sphere of their attraction, so as to prevent them from coming in contact with each other (as a rule of honor among themselves, and towards the department); but, at the same time, to cut, slash, and confuse outsiders as much as they please.

So every hair-brained aspirant, who can bring anything *new* to the Patent Office, and accompany the model with the thirty pieces of silver, can have his name enrolled upon the Government archives, as a benefactor worthy of a place on the same scroll that contains the names of FRANKLIN, FULTON, MORSE, and other men who have benefited their race. The smallest hook upon which to hang an excuse—the addition of some peculiarly-shaped block, pivot, or hinge, or the application of some old principle to a new use—the *smallest* and *most insignificant* alteration, *either for better or worse*—often constitute "a substantial novelty," (?) which is designated by a Government seal; long rigmaroles of explanatory specifications are then made out, and the real point upon which the patent rests twisted in so skillfully, that, with the aid of a nomenclature (more curious than definite), the public are deceived, mystified, and humbugged. This evil is becoming worse every day, and the community have become sick and tired of such annoyances. It is urged, that the General Government must float its navies, supply its postal deficits, pay its officers, and make its grants; and that it can only look to the sale of public lands, the Patent Office, and its port duties, as revenues, for supplying the funds for carrying out its objects.

But, can the Government find no way to meet its demands, other than by feeding upon the *delusions* of its willing victims, and by sending a hungry pack of unprincipled men to prey upon community for the license fee of a patent entry? If not, its present course will soon cut off that source of profit; for an outraged public are already beginning to regard the very name of a "patent vendor" with loathing and disgust.

There are now in the field no less than from *three to four hundred patents* in the various departments of the carriage-making business! and, of that number, *more than two-thirds* are not only *a curse to their owners*, but a *burlesque upon the intelligence of the age*. This class of inventors are but little better than lunatics, and should be pitied and protected, rather than despoiled by Government. And every useless novelty, thus issued, tends to render the other third unsalable and profitless. But that which renders this matter still worse is the cheapness with which editorial favors are purchased and sold by unprincipled scribblers for the mechanical press. Patent agencies, "big strikes," and patent copartnerships are fast becoming identified with the publishing of mechanical works. *Blowing* has been so much resorted to that we would suggest the appropriateness of a huge pair of bellows as *a figure-head* to the columns of a patent-puffing cotemporary, and a respectable silence, or a more perfect study of practical coach-making, on the part of the "Scientific American" of this city. We have been no less amused than disgusted with its fulsome laudations of various carriage-patents which its own descriptions have shown to be worthless. Fortunately, however, for the craft, the number of coach-makers who have a chance to be either injured or disgusted by it are comparatively few.

Perhaps no two things have produced so bad an effect upon the confidence of the community as this, coupled with the ignorance and lack of qualification among our higher officials. Thus, ignorance, stupidity and recklessness are fast rendering Governmental protection as worthless as it is cheap, and nothing short of a higher standard of judgment, on the part of the Patent Office, and a higher grade of honesty and consideration on the part of the press, can save the whole system from being regarded as a nuisance, or give to genuine improvements and worthy men that influence and respect to which they are entitled. But, in the absence of these, the public must double their vigilance. Specifications should be critically examined, that the purchaser may know whether the *real point* upon which the patent rests, when stripped of its *superfluous claims*, is *solid or worthless*. They must also be on their guard against "bogus agents." Lord Byron says, "that he once had his pockets picked by the *civilest looking gentleman that he ever met*." It will also be well for agents, not only to arm themselves with proper documents, but produce satisfactory evidence, and have their names announced through the "Magazine" before starting out to form the acquaintance of the craft. In our travels, we meet daily with victims who have been swindled by some one whose name and whereabouts are of an uncertain character.

It must also be remembered, that the law, in its protection of patents, makes them to cover ridiculously broad grounds. The sale of a "shop-right," to simply *manufacture and sell* an article, gives the *customer*, thus purchasing, *no right to use or convey away the same*. So, it is necessary to be empowered to *convey* the right to use, and to *transfer* that right with the sale of the article, either upon the basis of a *territorial* or *general grant*. If this is not done,

every man, who *unlawfully uses* even an article which is *lawfully made*, lays himself liable to the annoyance of a suit for damages, should some other person, holding an interest in the same, be disposed to take advantage of them. The ruling in this case is, *that a carriage is a machine*—not the *production of a patent*, but the duplicate of a patent model.

If a man purchase the right to use a labor-saving machine, he has no motive for the purchase of territory, unless he wishes to monopolize its use in a certain section of country; for the productions of that machine are not different in character from the same article elsewhere manufactured; so he may sell of its products to whom and in whatsoever section of country he pleases. But the man who has the right to manufacture and sell those machines must also be able to transfer the right to use them in a certain territory, or his customers are liable to a suit for damages.

A patent, attached to any part of a carriage, comes under the same rule; hence, purchasers should protect themselves in these points, and see that it is definitely specified, and in a legal manner—that the sale of each model shall be understood as also conveying a right to use and transfer the same, and, then, let the responsibility of clashing interests fall back upon the original owner of the patent, in the form of suits for fraud or damage. By this it will be seen, that no *good titles* of territory can be made, further than as a protection against competition in the *manufacture* of articles thus protected, without bringing trouble to the original holder of the patent. Hence, all dealers in rights to manufacture *transferable machines* must be cautious how they grant exclusive rights to manufacture and use within certain restricted limits; for, when they commence to sell in that way, there is no safety in selling otherwise in that region; and a patent thus sold (if legally regarded) is but a plague and annoyance to both the purchaser and his patrons. The only way in which a dealer can sell carriage-patents with safety to himself and benefit to carriage-makers is, to sell *shop or territorial rights to manufacture*, accompanied with legal authority to transfer the right to *use* the same, to all who may purchase carriages thus constructed and manufactured, or caused to be manufactured, by him; at the same time, limiting the number of carriages to be constructed upon that plan per year, or otherwise specifying the amount of business to be done.

Any man, who sells a carriage-patent differently, damages, not only his own business, but the interests of carriage-making generally; and any man who purchases a patent-right in any other manner than the one advised—if a reader of this work—will do so in the face of our warning, and at his own peril. If not a subscriber, he may find, to his sorrow, that, in saving a pitiful sum, he has missed ten dollars' worth of good, honest, legal advice, which, if known in time, would have saved him ten times that amount in time and money.

In the meanwhile, those, who may have patents which are really useful, had better get them examined by some competent judge—such as the first-class carriage-makers may have confidence in—so that they may come before the craft in a proper shape. But, those who only have a *worthless* patent had better sneak off with their trash to the one-horse wagon-making shops, bordering upon the outer verge of civilization, where the "New York Coach-maker's Magazine" has not yet penetrated; but mind, if they are caught at such dirty work, *they will be visited with such an exposure as will bring them to their senses.*

TO DRAFTSMEN.

IT is supposed to be well known that, in different sections of this country, the same style of a carriage may vary in its width of track from four feet up to five feet four inches. This is *all wrong*, and we intend to say something *desperate* (!) about it, when our editorial indignation becomes sufficiently intensified; but, for the present, we must treat matters as we find them, and not as they should be. The diversity of tracks which afflicts "Uncle Sam's" domain not only proves a source of annoyance to manufacturers and dealers, but in many instances (if proper care is not taken) affords a rich ground for misunderstandings to spring up on, between artists and patrons in a work like this.

When the width of the track and the width of the body, at the point where the wheel turns under, are each plainly stated, it furnishes a key to the whole draft; otherwise it is left to be guessed at, and generally misunderstood; for there is no way in which a side view can be made to indicate these points very correctly. Yet we are sorry to say, that even our best and most practical designers have thus far neglected, when sending in their drafts, to accompany them with any important explanations, either as to their *side sweep*, the "*set under*" *of standing pillars*, *width of track*, *width of front*; or whether the *pivot of the platform wheel is a central or eccentric one.* These are too important to be omitted. A work, *in order to become standard*, must finish each part, so as to make the subject complete within itself. The more simple details of elementary knowledge are, of course, unimportant; but when an attempt is made to delineate shapes and proportions, any superficial or half-way work reflects discredit upon both its author and patron.

It is our intention to render this Magazine a standard work—a book of working models—and, to do this, no point which is necessary to complete the description, in an author-like manner, should be omitted. We have conversed with some of our artists about this matter, and given all the necessary directions, and now we announce it to others, that all may understand what is required of them.

Draftsmen cannot well be *too explicit* in delineating the

peculiarities of their designs; for some excellent mechanics, in their own way, are very thick-headed in understanding the descriptions of others. The cares of business, and a thousand local interests, are constantly pressing with weight upon the brains of both workmen and employers, warping their minds and preventing them from taking a comprehensive view of things. When a draft comes to hand, if it pleases their eye, they proceed to copy, and build from the scale, without inquiring *or caring* what width of track, etc., is used in the section where it is drafted, unless it is labeled almost across the face of the draft; and should the application of a different scale of proportions vary the "turn under" of the wheel, or the location of the step, the draft is set down as unscientific in its delineation, and the Magazine as an unsafe guide to follow. Others (who ought to know better) show off their "scientific knowledge of drafting" by testing drafts, and showing the lesser satellites of the shop how such and such ones would bring the wheel into contact with the step, or strike too far back, in turning.

We received a letter a few days since from an experienced scale draftsman, gravely informing us that a certain draft was wrong; that "the top was too high; that the joints did not shut down below the line; that the wear-iron was too far back, and that the step would interfere with the front wheel." The top was correct to scale, but, showing no ground plan, it *looked* too high in the picture. The joints, it is true, did not shut down below the line—that, however, was a small matter; but the two last objections were correct or incorrect, according to the track that was applied.

Will our artists co-operate with us in placing their productions before the public in such a manner as to avoid even the smallest criticism, and make them to command respect, by accompanying them with such explanations as are necessary to meet the last quibble, and force their technical merit to be acknowledged and understood by all? If so, let them study *minuteness of execution*, and *completeness of explanation*, in even the minor points.

Our work has, even at the present time, a very general circulation in all sections of the United States and Canadas, and a limited circulation in Europe. Everything which appears on its plates of design is critically examined by the best masters in the New and the Old World, and but few of that vast multitude can know or calculate upon local differences, further than what they can see in the book itself.

Our draftsmen will, therefore, please bear the following rules in mind, when drafting for this Magazine. In the first place, we would suggest that the use of a specified width of track by all draftsmen would do much towards the adoption of a uniform width throughout the country; and believing, also, that narrow tracks are but the relics of days gone by, we would further suggest the propriety of adopting a liberal width—say four feet eight inches, or five feet; but, in all cases, state the width of both track and body; also the depth of the side sweep; the "set under" of the standing pillar; the style of the pivot wheel; if a heavy job, whether central or eccentric; if the latter, how far it couples back or forward, and accompany it with a draft for the department, if no similar platform arrangement has been illustrated, which can be referred to; if a *light* wagon, either allude to, or illustrate the style of its carriage-part and fifth-wheel arrangement, if necessary. In some instances, the sweeps of the body might be placed below the base line on which the wheels rest. But we should be pleased to receive a regular draft of each heavy job, with geometrical sweeps applied, for inserting, with the explanations, in our "Pen Illustrations of the Drafts."

Our artists will also please to remember that we have *mechanical departments, which are intended for the explanation of the plates*, as well as for the suggestion of incidental facts and instructions. If any part of the ironing, painting, or trimming is worthy of remark, or in any manner peculiar, either draft or explain it, that we may place it in its proper department, as explanatory matter, numbered the same as the draft.

We hope that our draftsmen will heed the above directions; for, should they fail to do so, it will put us to the trouble of writing a letter of inquiry, and, perhaps, result in the return of the draft. We do this, *both for your good* and our own.

☞ We find that after leaving out several important Editorials, still the crowded state of our columns obliges us to defer Mr. Groot's second article on Wheels, and Mr. Campbell's third letter on Coach Carving, designed for this number, until our next issue.

For the New York Coach-maker's Magazine.

ON SCALE DRAFTING, AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, BRIDGEPORT, CONN.

INTRODUCTION.

In announcing a series of articles on scale drafting, I wish to make a few remarks on a similar course, undertaken in the March No. of the Western Magazine for 1857. The preparatory instructions there given were necessary for beginners, and I was in hope to see it continued; but it died out in the July issue with the 4th No., for reasons best known to the publisher and author, *whereby hangs a tale which I think I could unfold*, because caught in a similar dilemma myself, along with others who had the misfortune to be led away by that "tall editor's" promises. But I am digressing, and I ask forgiveness for my allusions to the fellow in this respectable work.

I do not presume to write for, or to offer instructions to those who have been as long at the business as myself—these have had equal privileges; but if I can succeed in conveying my ideas in writing, sufficiently clear and intelligible to those commencing the trade, so that they may master the art, my object will be gained.

I know that there are many disadvantages in trying to learn by this method, but then perseverance will overcome every difficulty, and the cheapness of the method is an object now-a-days. I shall have to be extremely plain and commonplace in all my instructions, avoiding all learned phrases, as we must not and cannot call it a science, nor can we with propriety avoid all unintelligible technicalities. Should there be a similarity in the commencement of mine to those commenced in a former publication, you must not accuse me of plagiarism, as I despise such, admitting that *that* was correct, as far as it went. I would also state here that anything not made sufficiently plain, so as to be readily understood, by asking me through the post for the desired information, I will reply in the next issue of this Magazine, in its columns of answers to correspondents.

I must first prepare you, by letting you know what is required in the shape of tools. You will need a drawing-board of $\frac{5}{8}$ whitewood, or pine, about sixteen inches square, and raised behind, like a desk, about two inches; a T square, long enough to cross the board; a sheet of Bristol board drawing-paper, cut into pieces—7 by $4\frac{1}{2}$ inches is large enough for $\frac{1}{2}$ inch scale drafting—four drawing pins to secure the paper to the board; a No. 3 Faber pencil—[artists in New York use No. 4.—ED.]—a cake of india ink; a small piece of india rubber; a number of small sweeps and curves, of all shapes and patterns, which you can make yourself. I do not approve of the curves which are sold at the shops; they are not suited to carriage drafting. The best way will be to get a fine-grained piece of rose-wood veneer of the proper thickness — that is, very thin—and cut out a variety of crooks, curves, and ogees, of different sizes, and rub the edges smooth with fine sand-paper, and be sure and rub off the corners, else you will be troubled when you come to use your pen, as the corners are apt to draw the ink and blot your paper.

THE INSTRUMENTS.

It is quite unnecessary to have a large case of mathematical instruments. Sometimes they can be had in cases to suit. You will want

First: A very essential thing, a proper scale-rule, which you must be very particular to see is marked twelve inches to the foot, *i.e.*, the standard half-inch divided into twelve equal parts, as they are often divided into tenths for French measurements. This can be had separately for from 50 cts. up to $1—the choice between box-wood and ivory.

Secondly: A parallel rule, costing, as above, from 50 cts. to $1.

Thirdly: A drawing pen, worth from 38 cts. to $1.25, according to the quality.

Fourthly: A compass with pen, pencil, and lengthening rod, worth from 88 cts. to $1.75, according to the length.

Fifthly: A compass for small circles, costing from $1 up to $2.

Sixthly: A pair of hair dividers, costing $2.

All the above articles will be purchased by the publisher of this Magazine, separately or together, and sent as directed, either by express or mail, or as otherwise instructed, when the order is accompanied by the cash. It will be the cheapest in the end to get *good* instruments—a complete set will cost, say $10. I shall commence the first lesson in the next issue.

MORE OF WHAT THE PRESS SAYS OF OUR MAGAZINE.

From *The Printer* for July.

COACH-MAKER'S MAGAZINE.—We have received the second number (for July,) of a monthly periodical devoted to the interests of coach and carriage builders, published in this city by E. M. Stratton. It is in quarto form, containing twenty pages besides the cover, and is well filled with useful and interesting matter appropriate to the main objects of the magazine. It is illustrated with numerous fine engravings. The present number contains two styles of Jump-seat Buggy, a French (Boguet) Buggy, a new Rochelle or Jagger Wagon, a Dog-cart, and a Calash Coach. The whole magazine is very neatly got up, and in that respect approaches nearer to our own *Printer* than anything we have seen for some time. The price is three dollars a year.

From *Porter's Spirit of the Times*, of July 31st.

THE NEW YORK COACH-MAKER'S MAGAZINE is a journal devoted to the mechanical, literary, and social interests of the craft. The engravings, of all descriptions of vehicles, drawn to a perfect scale, are invaluable to carriage-makers; while the literary matter is of the most commendable description. The articles on "The Three-fold Nature of Man" and "Coach-making Historically Considered" are excellent; and both information and amusement are contained in this unpretending, clever speciality.

The above are but a few of the *voluntary* commendations which our Magazine has received from our brother editors. The warm hearts and generous approval with which the craft have greeted our humble efforts, on all sides, shall stimulate us to greater exertion in endeavors to merit their continued smiles and patronage.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME.

AMERICAN PATENTED INVENTIONS.

July 13.—ATTACHING SLEIGH RUNNERS.—Wm. W. St. John, of Lima, N. Y.: I do not claim allowing motion to the hind runner at the bolsters, said runner being drawn along by a connection at its forward end.

But I claim the combination of the T-formed slide, 5, cap, 3, and joint, 4, for attaching the hind runner of sleighs to the body, when said runner is drawn by a connection to its forward end, substantially as and for the purposes specified.

METALLIC HUB FOR CARRIAGE WHEELS.—Nathaniel T. Edson, of New Orleans, La.: I claim, first, the cone, H, when made and applied in the manner substantially as specified.

Second, The oil chamber, 5, in combination with one or more orifices, 4, when formed on the outside of the box by means of a nut, substantially as represented.

Third, The combination of the oil cup, B, with the cone, H, for the purposes specified.

Fourth, I claim the chamber, 5, substantially as described, in combination with the outer cup, B, for the purposes specified.

SPOKE-SHAVE.—Leonard Bailey, of Winchester, Mass.: I claim the improved spoke-shave, as constructed with its bearing surface in front of its cutter, applied to the stock by means of a lever having an adjusting screw, or its equivalent, or a screw and a spring applied to it, so as to enable the said bearing surface to be moved with respect to the cutter, and the bearing surface in rear thereof, substantially in manner as described.

I also claim the arrangement and application of a protecting cavity or chamber within the lever, and to the spring thereof, in manner and for the purposes set forth.

July 20.—WHEELWRIGHTS' MACHINE.—Wm. Hinds, of Otsego, N. Y.: My claims, to the improvements embodied and combined in this machine over others for the same uses, are, that it is constructed in a stronger, more compact, and in a more durable manner, and less liable to get out of repair. That the machine, in all its parts, is in a form to render its construction simple and cheap, and can be more speedily shifted and adapted to the different kinds of work to be performed. That it is more

simple, easy, and expeditious to use, and works with a precision as exact as man can think or desire.

I claim, first, Combining regular perpendicular ways, both in the mandrel carriage and in the head blocks, to operate conjointly in adjusting the augers to different positions for boring.

Second, I claim the method of adjusting the hubs for boring by suspending and revolving them on gudgeons in a carriage that vibrates the other way on a pin, and is set and controlled by thumbscrews at d d, the revolving motion of the hub being set and controlled by index wheels and the latch, at f.

Third, I claim the entire construction of the spoke-holder and carriage, embodied therewith, together with the catch or hook for controlling its motion.

Fourth, I claim the wheel carriage and plates to be used on the ends of the hub, to confine the motion of the wheel to the axis of the hub and axle.

OMNIBUS REGISTER.—Louis Brauer, of Washington, D. C.: I do not claim moving the indicator of a register by pressure upon the steps.

But I claim the employment of an elastic step, by means of the movable rods, K K, for operating the register plate and bell, in the manner set forth.

RE-ISSUE.—CASTING SKEINS FOR WAGONS.—Andrew Leonard, of Kenosha, Wis., dated Feb. 24, 1857: I do not claim to have been the first to make thimble skeins as such.

But I claim the combination of a whole thimble skein pattern, b, with a loose collar pattern, 1, substantially as specified and as shown in Fig. 1, for the purpose specified.

I claim, also, the vertical position of green sand cores for thimble skeins, when molded and combined at their base with the mold, substantially in the manner specified; in combination with the adjusting top of the cores at (s) by the hand, after the mold is completed, except the casse, whether core bars or their equivalents for the purpose are used, substantially as described and shown.

AXLE BOXES, &c.—David Cumming, of Sorrel Horse, Pa.: I claim, first, The peculiar form of the outer end of the axle, c, and tapering hole, e, in box, F, when the said axle and box are arranged relatively to each other as described, for the purpose set forth.

Second, The combination of the two inner portions, E and E', of the box with the clasp, C, as and for the purposes described.

HANGING CARRIAGES FOR CHILDREN.—Gilbert Maynard, of Greenfield, Mass.: I am aware that spiral springs have been applied to vehicles, and arranged in various ways, both singly and combined with other forms of springs: I therefore do not claim broadly and in the abstract the employment and use of spiral springs in children's vehicles.

But I claim forming the springs of the chaise, and the axle or bearings of the wheels, C, of the same, by means of a single rod, B, bent and applied to the device, as shown and described.

July 27.—SAFETY WHIFFLETREE.—George F. Oulten, of Norfolk county, Va.: I claim the hooks, D, constructed with two different angles, and which allow the traces to commence detaching as soon as they commence revolving, and are released entirely at one-fourth of a revolution, operating as and for the purposes set forth.

HUBS FOR CARRIAGE WHEELS.—Norman Platt, of Jackson, Miss.: I know that metallic hubs are not new, nor are clips to secure the spokes, perhaps, a novelty; nor is cast boxing, as such, the subject of a patent, while the peculiar construction and the mode of securing the one I have described may be, still,

I claim the combination of a flanged metallic hub for carriage, wagon, and buggy wheels, with clips to stay and strengthen the spokes, together with a metallic boxing for said hub, secured by a swelled head screw and tap, substantially as described.

OMNIBUS FARE BOX.—I. S. Reeves (assignor to J. B. Slawson), of New Orleans, La., dated Feb. 23, 1858; I claim, first, The glass plates, i and f, as arranged in connection with the apron, m, in the manner substantially as and for the purposes set forth.

Second, Closing the passage to the drawer below from the chamber above, by means of an apron, operated by a spring, S, in the manner substantially as set forth.

The Humorists' Column.

"A little nonsense, now and then,
Is relished by the best of men."

THE WELSH COBBLER'S SIGN.—"Pryce Dyas, cobbler, dealer in 'bacco shag and pig-tale, bacon and gingerbread, egs laid every morning by me, and very good paradise, in the summer, gentleman and lady can have good tae and crumpets and strawberry with scim milk, because I can't get no cream.

N. B. Shuse and boots mended very well here!"

A LADY, the other day, asked a young gentleman: "Sir, is your wife as pretty as you are?" Not caring to be complimented at the expense of his wife, he, by way of gentle reproof, blushingly replied: "I cannot say about that, miss; but she has pretty manners." The lady quietly vamosed—no further interrogatories propounded.

"SHON," said a Dutchman, "you may say what you please 'bout bad neighbors; I had te vorst neighbors as never was. Mine pigs and mine hens come home mit der ears split, and todder day two of dem come home missing.

TALL toasts are in great demand in America. At a late public meeting, the following "dry" toast was given (the author of which got "buttered" when he reached home): "The press—the pulpit—and petticoats—the three ruling powers of the day. The first spreads knowledge, the second spreads morals, and the last spreads considerably."

A TENDER-HEARTED widower fainted at the funeral of his third beloved. "What shall we do with him?" asked a friend of his. "Let him alone," said a waggish by-stander, "he'll soon re-*wive*."

VERY bad spelling is sometimes the best, as in the case of the English beer-vender, who wrote over his shop door:

"*Bear* sold here."

Tom Hood, who saw it, said that it was spelled right, because the fluid he sold was his own *bruin*.

HARD BARGAINS.—The wretched old bachelor says, that a man, marrying now-a-days, marries a great deal more than he bargained for; he not only weds himself to a woman, but a laboratory of prepared chalk, a quintal of whalebone, eight coffee-bags, four baskets of novels, one poodle dog, and a system of weak nerves.

A maiden lady answers, that a woman marrying now-a-days must wed a dozen pair of rejected pants, a box of buttonless shirts, six bottles of hair-oil, a little chest of patent medicines, with the labels in the French language, a mass of unpaid tailors' bills, a broken constitution, with a brain which considers business a ridiculous as well as a vulgar way of spending life.

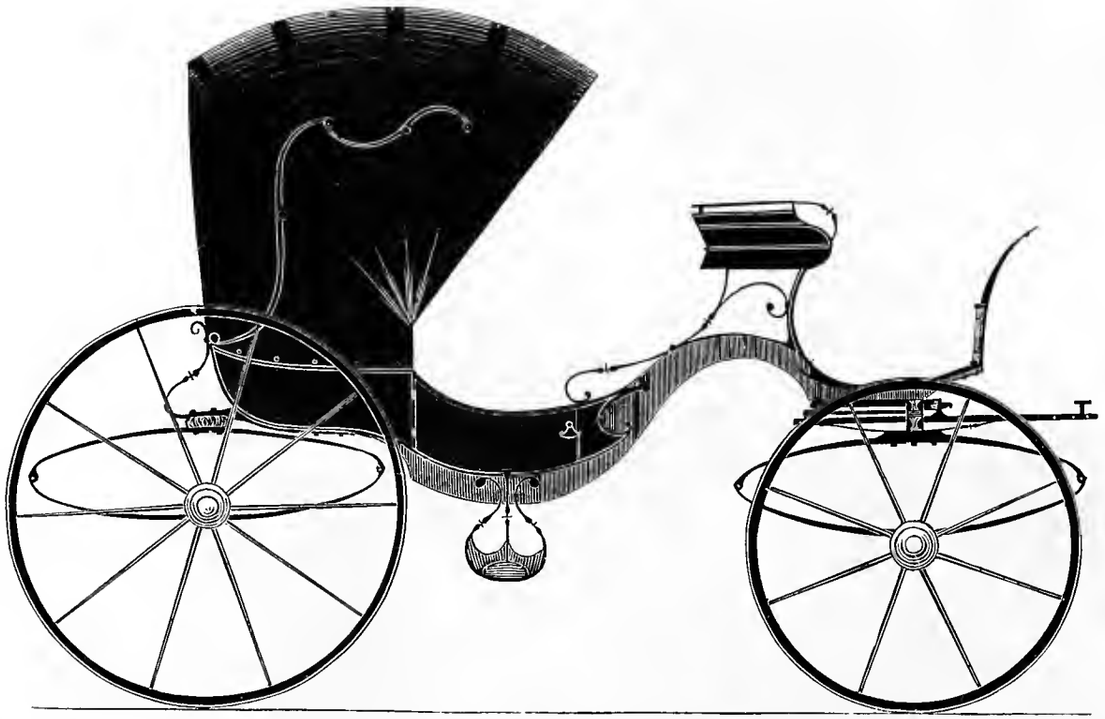
"As I was going," said an Irishman, "over Westminster Bridge, the other day, I met Pat Hewings. Says I, 'How are you?' 'Pretty well, I thank you, Dooley,' says he. Says I, 'That's not my name.' 'Faith, no more is mine Hewings,' says he. So we looked at each other, and, faith, it turned out to be neither of us!"

THE ugliest of trades have their moments of pleasure. Now, if I were a grave-digger, or even a hangman, there are some people I could work for with great enjoyment. —*Douglas Jerrold.*

SORROWS grow less and less every time they are told, just like the age of a woman.

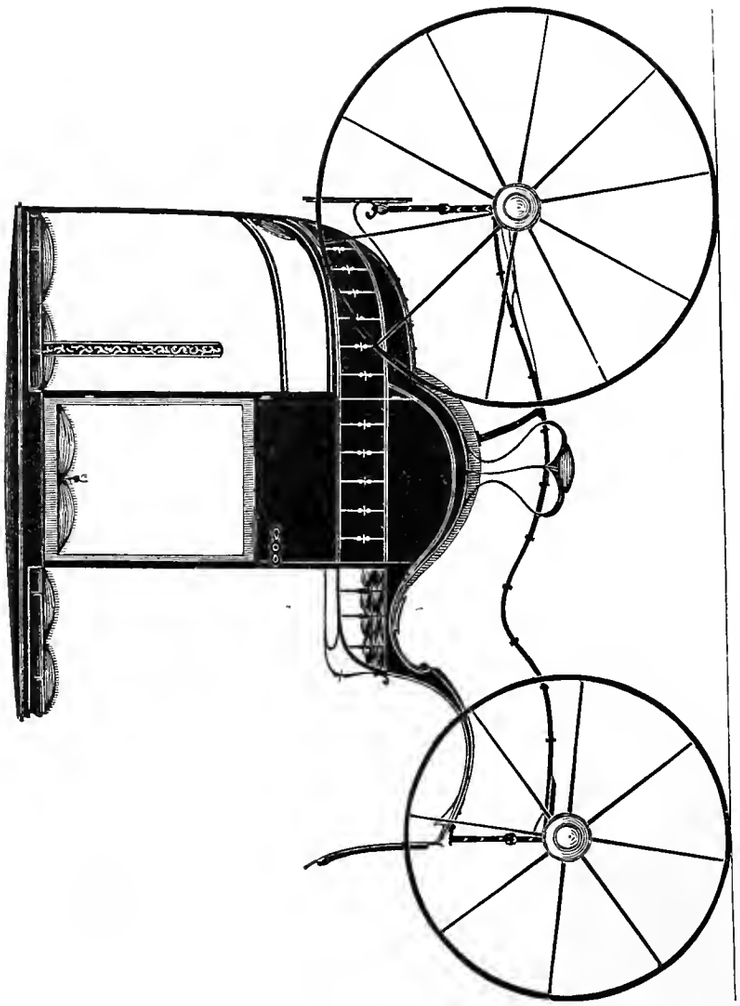
LYON'S BAROUCHE.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 89.



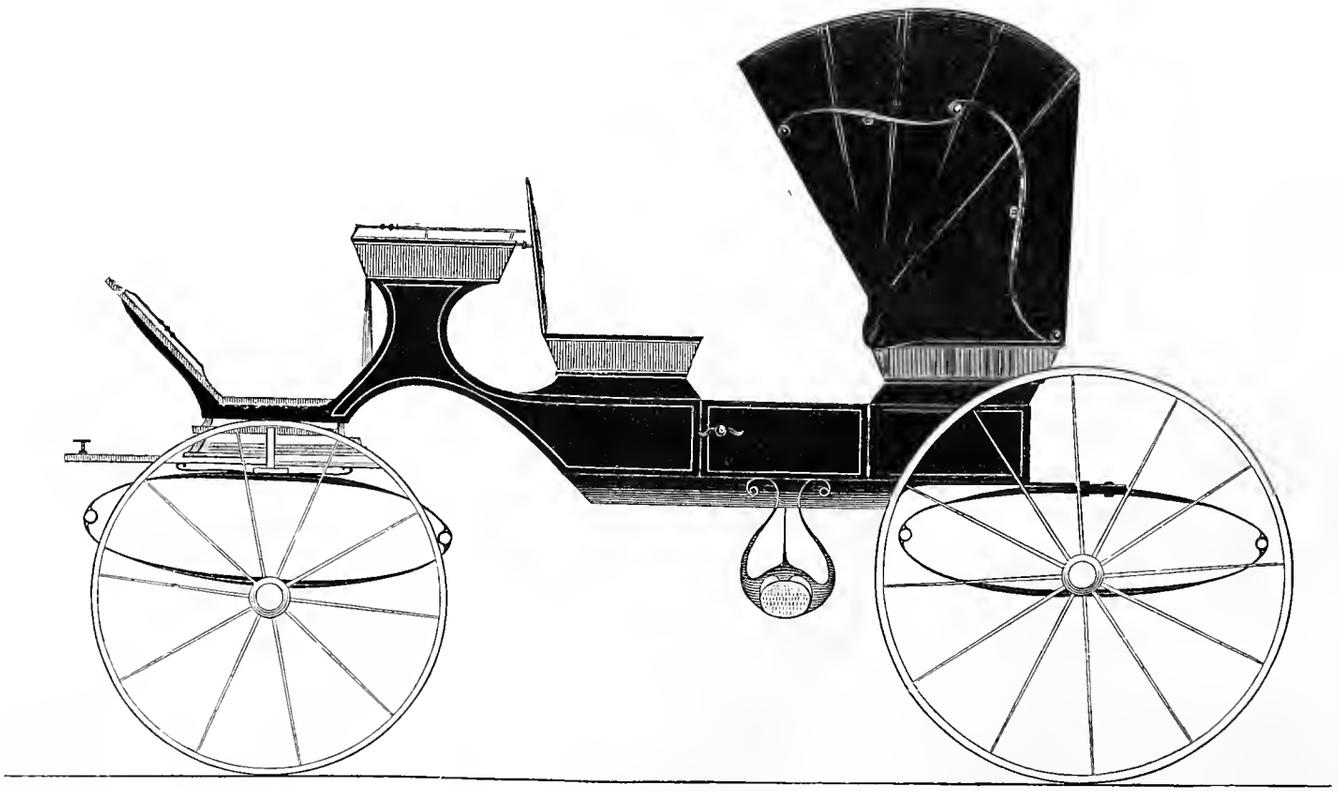
THE DALZELL CRANE-NECK PHÆTON.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 89.



LIGHT ROCKAWAY.—½ IN. SCALE.

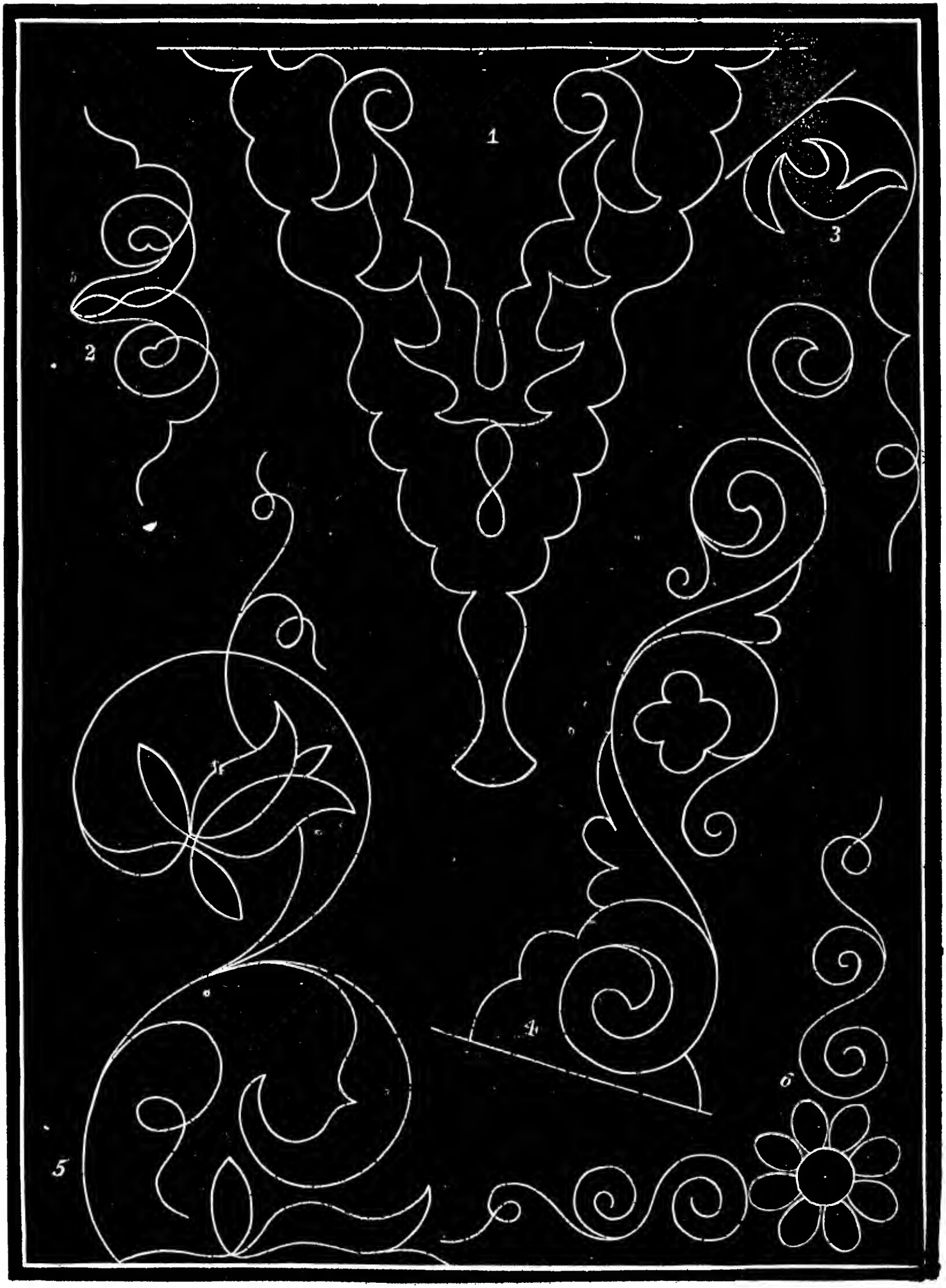
Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 90.



FAMILY PHÆTON.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 90.

STITCHING PLATE B FOR OCTOBER.



DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, OCTOBER, 1858. No. 5.

Miscellaneous Literature.

For the New York Coach-maker's Magazine.

THE BEST TIME TO CUT TIMBER.

"When Autumn comes and leaves are dry,
And rustle on the ground,
And chilling winds go whistling by,
With moaning, pensive sound:
Cut timber, then, for posts and beams, and rails,
For tongues and thills, for whipple-trees and stales."

To know when to cut timber, so as to secure its greatest durability, firmness and elasticity, is an inquiry of no small moment to every one who makes use of timber, which it is very desirable to have durable, when exposed to the influence of the weather; or firm and elastic when worked into implements, tools and vehicles. Carriage-makers are, or ought to be, particularly interested in this subject; because it is not only an act of honesty to make carriages of the most durable and firm materials, but of dishonesty and detriment to the craft to put timber into vehicles which would have been very much better if it had been cut at a different season of the year. It is a fact which cannot be denied, that there is a period when, if a tree be cut down for timber, or for anything else, it will be far more durable and firm and elastic—which are three very indispensable qualities in timber for carriages—than if it were cut at any other season of the year. Both reason and experiment teach us that this period is the latter part of Autumn. We know that some writers on this subject have advocated, with much plausibility, that Winter, others that Spring, and others again that Mid-summer is the best time.

The reason why different writers have come to conclusions differing so widely must be, because their observations have been very limited, or their experiments have been very unfairly and imperfectly conducted. Every one, who has had any considerable experience in the management of timber, knows too well that the treatment which timber receives, immediately after it has been cut down, affects, very much, not only its durability, but its firmness and tenacity. If, for example, a tree of white oak or ash, or any other kind of hard wood, be allowed to remain in the log after it has been felled, until any fermentation of the juices takes place, that timber will most certainly be injured to a certain degree; and no after treatment will render it as durable, tenacious and firm as it would have been had it been split out and placed in a situation where it could season gradually, before any fermentation took place. Any one who will investigate the subject candidly and fairly, and not be influenced by some inveterate prejudice, or moonshine theory, cannot fail to perceive that Autumn is the best time to cut timber, where durability and toughness are the great desiderata. When the leaves of a tree have fallen, the new wood has arrived at perfect maturity; and at no other period in the year is there less sap in a tree than late in Autumn. Hence, at this season, albumen, which is the chief cause of fermentation, is less abundant than at any other time. Timber that has been cut late in Autumn, and immediately hewn, sawed, or split out, and placed where it can season (it matters not what kind of timber it may be), will be more durable, tenacious and firm, than if that same timber had been cut at any other period, even if the treatment were alike in both instances. And, besides this, timber cut at this time, and treated in this manner, will never "powder-post," nor be affected with dry rot, unless it were placed in a situation where it could not become thoroughly seasoned. When timber has been cut at the time already specified, and placed where it can season, the seasoning process is very gradual for several months, during which time the grain settles together before hot weather comes on, and the pores of the wood become more contracted, and, consequently, there will be less space for water to enter; and, more than all besides, if such timber ever possessed any durability, tenacity or firmness, these desirable qualities will all be retained. On the contrary, if the same timber were cut in Mid-summer, and treated the same, the consequence often is—and with many kinds of timber *always* is—that it seasons so rapidly it is rendered brash and non-elastic, and is destitute of that firmness which is desirable in timber designed for vehicles or tools of any kind.

Those who have had much experience in cutting timber, at different seasons of the year, know that hickory, sugar maple, white-ash, and some other kinds, when cut at a certain time, will "powder-post," even after it has been worked up, in making tools or anything else. We have often seen the rungs of chairs, rake-teeth, and rake-stales, wagon-spokes and fellies, and handles of many kinds of tools, completely powder-posted, in consequence of having been

cut at the wrong season of the year; and we have often seen white-ash and white-oak plank very much injured by the worms, because the timber had been felled in the latter part of Winter, or in Spring. And it is a very common thing to see the beams and posts of buildings, which were felled in Winter, or early in the Spring, often rendered almost worthless from this cause.

It is not always the case that timber becomes injured by powder-posting, in consequence of having been felled in Winter or Spring; but nearly all kinds of hard timber are very liable to be thus injured, and no ordinary after treatment in seasoning will prevent it. Kyanizing, steaming, or impregnating it with chemical substances, will prevent it; but a most certain remedy is to fell it late in the Fall, and split it out, and allow it to season gradually during the Winter.

S. Edwards Todd.

Lake Ridge, Tompkins Co., N. Y.

Translated from the *Mercure Universel* for the N. Y. Coach-maker's Magazine.

GOOD AND BAD WORK IN THE MANUFACTURE OF CARRIAGES—CAUSES WHICH PROP UP BAD WORK.

There is an old proverb which says, that "when every one sticks to his trade, the cows are better cared for." This saying comprises everything, and, therefore, if none but coach-builders were engaged in the manufacture of carriages, we would generally have better built carriages; this is a fact easily understood, and well known by those who are judges, both in Paris and elsewhere.

But as everybody is not a judge in this matter, we shall here analyze the business and state the means to be employed to guard against that display of inferior articles with which several establishments would overrun France.

We know, and our readers know as well as we do, the establishments of which we speak, but which we will not name, because, although the managers, or those who furnish the capital, are not workmen (artists) in the trade, that fact does not prevent them from being honorable and industrious men, who furnish articles of inferior workmanship, corresponding to the price at which they are sold. But that is not the point in question: our object is to prove to our readers that, in order to have good work done in white [unpainted], it is necessary to apply to men broken [initiated] into the trade, who are morally responsible for their work, and whose capacity is already established. While from the others, that is to say, those who, established on a large scale, exhibit monstrous work-shops and machinery, which runs only for show, what can be expected from them but slop work, which, once out of their hands, can neither reflect credit nor profit to them. It is only in cases of an urgent demand to be satisfied that promptitude is an equivalent for good work, but such cases occur at rare intervals; and, therefore, we conclude that it is better to apply to the natural producer, and not be deceived, than to those who are but mere speculators in the business. In spite of what these wholesale dealers may say, they never will have fine workmen in their shops; and, even should there happen to be such in their employ, they will have but the men, and not their skill, for the skillful workman has always had, and always will have, an antipathy for those who order him in his business, and who have not the necessary knowledge to do so.

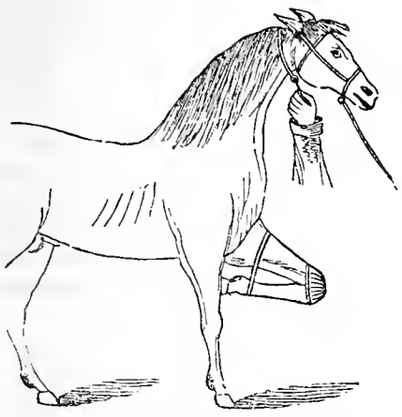
To distinguish good work from bad, three things are required: a little knowledge and taste, a previous examination of the axle-trees and springs; the last named should be black, instead of being nearly polished; the axle-trees should be of private manufacture, with caps rather red than yellow; and lastly, the price should be a standard price, that is, neither too high nor too low, *for example:* the reasonable price of a coupé, unpainted, is 1,400 francs ($238); but we know of establishments that furnish them for 1,000 ($170), and those establishments, having the appearance of doing the work in their own shops, do the same thing which the commission houses do, that is, they run about in search of needy workmen, to obtain from them cheap work. Is it possible that these workmen should furnish them good work? It is evident they will not; and, is it advantageous for the seller, and more especially for the buyer, to buy a carriage that will fail him from the first day, and perhaps at the very moment when he most requires it? That is the time when he regrets having paid *too cheap* for his bargain, and when he may say, "*we can never obtain anything good without paying for it.*"

THE HORSE-TAMER'S SECRET UNFOLDED.

Although much has been written and said about the wonderful discoveries of John S. Rarey, who, for some time back, has astonished the London "big-bugs" and cockneys, yet, as far back as the time of Alexander, who accomplished so great a feat as to tame the wild Bucephalus, something of the art may fairly be presumed to have been known. The experiment our countryman has performed with the English horse, Cruiser, may, after all, be but a more noised-abroad practice, under the patronage of Royalty, of the Macedonian success. By permission of our friends Messrs. Greeley & Co., of the N. Y. *Tribune*, we are enabled to present our readers with the whole art of taming horses, zebras, jackasses (in which we include bipeds as well), and other "critters," from a *wild* to a state altogether *unnatural*. With this preamble, we "dash" into the secret at once.

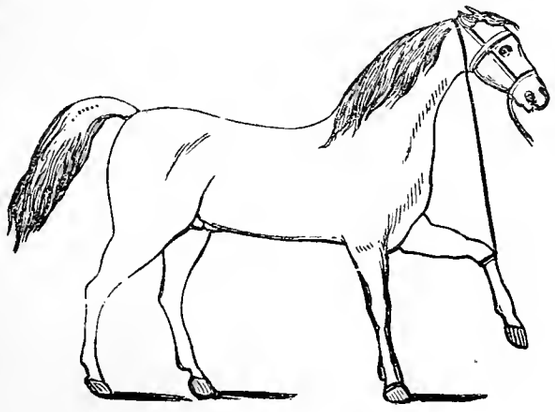
The one principle which you must establish firmly in your mind, and which is so essential in horse-taming that it is almost the corner-stone of the theory, is the law of kindness. Next to kindness you must have patience, and, next to patience, indomitable perseverance. With these qualities in us, and not possessing fear or anger, we undertake to tame horses with perfect assurance of success, if we use the proper means. The horse receives instruction in, and by the use of, four of his senses—namely, seeing, hearing, smelling and feeling. You must remember that the horse is a dumb brute, has not the faculty of reasoning on experiments that you make on him, but is governed by instinct. In a natural state he is afraid of man, and never, until you teach him that you do not intend to hurt him, will that fear cease—we mean that wild natural fear—for you must have him fear you as well as love you, before you can absorb his attention as much as is necessary to break him to your liking. It is a principle in the nature of a horse not to offer resistance to our wishes, if made in a way that he understands, and in accordance with the laws of his nature.

In subjugating the horse, we must make a powerful appeal to his intelligence; this can only be done by a physical operation. It is an undisputed fact that the battles of all animals (except such as are garnished with horns) are fought by seizing each other by the throat. A dog, that has been thus held by his antagonist for a few minutes, on being released, is often so thoroughly cowed that no human artifice can induce him to again resume the unequal contest. This is the principle upon which horse-taming is founded.



Choking a horse is the first process in taming, and is but the beginning of his education. By its operation a horse becomes docile, and will thereafter receive an instruction which he can be made to understand. Teaching the animal to lie down at our bidding tends to keep him permanently cured, as it is a perpetual reminder of his subdued condition.

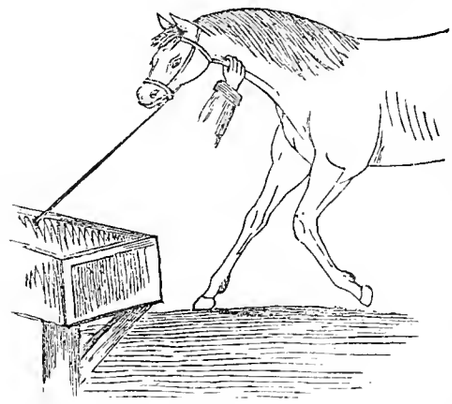
It requires a good deal of practice to tame a horse successfully; also a nice judgment to know when he is choked sufficiently, as there is a bare possibility that he might get more than would be good for him. We advise persons not perfectly familiar with a horse to resort rather to the strapping and throwing down process (unless he is very vicious) described below; this, in ordinary cases, will prove successful. It is the fault of most people who have owned a horse to imagine that they are experts in his management; while, on the contrary, many professional horsemen are the very worst parties to attempt his subjugation. Unless a man have a good disposition he need not attempt horse-taming.



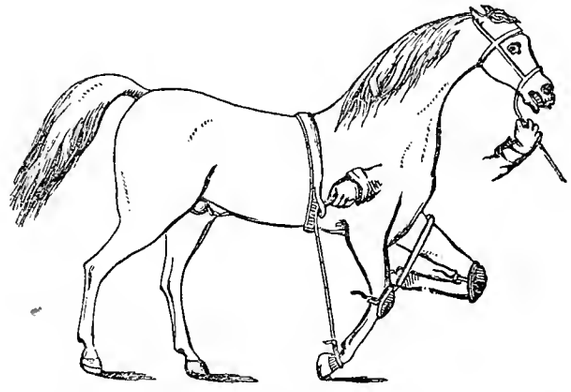
In practicing the method exhibited in the above engraving, retire with the animal to be operated upon into a close stable, with plenty of litter upon the floor (tan-bark or sawdust is preferable). In the first place fasten up the left fore-leg with the arm strap, in such a manner that it will be permanently secured. Then take a broad strap and buckle and pass it around the neck, just back of the jawbone. Draw the strap as tight as possible, so tight as to almost arrest the horse's breathing. The strap must not be buckled, but held in this position to prevent slipping back. The animal will struggle for a few minutes, when he will become perfectly quiet, overpowered by a sense of suffocation: the veins in his head will swell; his eyes lose their fire; his knees totter and become weak; a slight vertigo will ensue, and growing gradually exhausted, by backing him around the stable, he will come down on his knees, in which position it is an easy matter to push him on his side, when his throat should be released. Now pat and rub him gently for about twenty minutes, when, in most instances, he will be subdued. It is only in extreme cases necessary to repeat the operation of choking. The next lesson is to teach him to lie down, which is described below in the account of the second method of taming. No horse can effectually resist the terrible effects of being choked.

It must be constantly borne in mind that the operator must not be boisterous or violent, and that the greatest possible degree of kindness is absolutely essential. When the horse is prostrate, he should be soothed until his eyes show that he has become perfectly tranquil.

ANOTHER METHOD.



Secure the horse with a stout halter to the manger. If extremely unruly, muzzle him. Soothe him with the hands for a few minutes until he becomes somewhat pacified. Then seize him by the throat, close to the jawbone, with the right hand, and by the mane with the left. Now forcibly compress his windpipe, until he becomes so exhausted that, by lightly kicking him on the fore legs, he will lie down, after which he should be treated as previously described. This process requires courage in the operator, and also great muscular strength.



ANOTHER METHOD OF TAMING A HORSE, ALSO, TO TEACH HIM TO LIE DOWN.

The plan described in the above engraving is very simple, though not as expeditious as the previous one. Buckle or draw a strap tight around the neck, lift a fore leg and fasten around it the opposite end of the strap, the shorter the better. In the engraving, for the sake of clearness, the strap is represented too long. It will be seen that in this plan the horse is made the instrument by which the punish-

ment is inflicted. When he attempts to put his foot down, his head goes with it, and thus he chokes himself; care should be taken that he does not pitch on his head, and thus endanger his neck.

TAMING A HORSE WITHOUT RESORT TO STRAPS.

The horse to be operated upon should be led into a close stable. The operator should be previously provided with a stout leather halter; a looped strap to slip over the animal's knee; a strong surcingle, and a long and short strap—the first to fasten round the fore foot, which is at liberty, and the second to permanently secure the leg which is looped up. The application of the straps will be better understood by reference to the engraving.

In the first place, if the horse be a biter, muzzle him; then lift and bend his left foreleg, and slip a loop over it. The leg which is looped up must be secured by applying the short strap, buckling it around the pastern joint and fore-arm; next put on the surcingle, and fasten the long strap around the right fore foot, and pass the end through a loop attached to the surcingle; after which fasten on a couple of thick leather knee-pads—these can be put on in the first place if convenient. The pads are necessary, as some horses in their struggles come violently on their knees, abrading them badly. Now take a short hold of the long strap with your right hand; stand on the left side of the horse, grasp the bit in your left hand; while in this position back him gently about the stable until he becomes so exhausted as to exhibit a desire to lie down, which desire should be gratified with as little violence as possible; bear your weight firmly against the shoulder of the horse, and pull steadily on the strap with your right hand; this will force him to raise his foot, which should be immediately pulled from under him. This is the critical moment; cling to the horse, and after a few struggles he will lie down. In bearing against the animal do not desist from pulling and pushing until you have him on his side. Prevent him from attempting to rise by pulling his head towards his shoulder. As soon as he is done struggling, caress his face and neck; also, handle every part of his body, and render yourself as familiar as possible. After he has lain quietly for twenty minutes let him rise, and immediately repeat the operation, removing the straps as soon as he is down; and if his head is pulled toward his shoulder it is impossible for him to get up. After throwing him from two to five times, the animal will become as submissive and abject as a well-trained dog, and you need not be afraid to indulge in any liberties with him. A young horse is subdued much quicker than an old one, as his habits are not confirmed. An incorrigible horse should have two lessons a day; about the fourth lesson he will be permanently conquered. If the operation is repeated several times, he can be made to lie down by simply lifting up his foreleg and repeating the words, "Lie down, Sir," which he must be previously made familiar with.

The following rules will serve as a guide to the amateur operator, and should be strictly observed: First: The horse must not be forced down by violence, but must be tired out till he has a strong desire to lie down. Secondly: He must be kept quiet on the ground until the expression of the eye shows that he is tranquilized, which invariably takes place by patiently waiting and gently patting the horse. Thirdly: Care must be taken not throw the horse upon his neck when bent, as it may easily be broken. Fourthly: In backing him, no violence must be used, or he may be forced on his haunches and his back broken. Fifthly; The halter and off-rein are held in the left hand, so as to keep the head away from the latter; while, if the horse attempts to plunge, the halter is drawn tight, when, the off-leg being raised, the animal is brought on his knees, and rendered powerless for offensive purposes.

The operations of teaching a horse to follow a man, and also to cure him of kicking and balking, should be preceded by the throwing-down process, and in bad cases by the choking operation, as the animal is thus rendered gentle, tractable, and officiously obedient to whatever he can be taught to comprehend. This subsequent educational course is necessary in order to render the reformation permanent.

(To be continued.)

SOMETHING ABOUT WHEELS—THEORETICAL AND PRACTICAL.

(SECOND ARTICLE.)

If we take a retrospective glance at wheel-making as practiced in former times, and fully understand the changes made in the minds of more modern mechanics, both theoretically and practically, the subject will assume a tone of the deepest interest to every carriage-maker. We see, in imagination, the old strong-nerved and strong-armed man, with his sleeves rolled up and overalls on, swinging a ponderous hatchet, reducing to a proper size the stick which has been furnished him for a spoke by some woodland possessor. In this particular, time has wrought a wonderful change. The hard labor imposed upon the workman in getting out spokes has been taken away by the aid of machinery—how much to the benefit of that workman is a question we shall not undertake to decide here. Suffice it to say, that a history of the spoke, as applicable to carriages, alone would afford a subject for a longer article than we can afford to devote to the whole wheel. Our next selection for our wheel will be

THE HUB.

An old writer gravely informs us, that all "hubs should be thickest at the place where the spokes are inserted, and the holes in which the spokes are placed should not be bored quite through, as the grease upon the axle-tree would insinuate itself between the spoke and the nave, and prevent that close adhesion which is necessary to the strength of the wheel." The same writer says, "the stock or nave of a wheel is commonly formed of elm wood. To produce their sound, conical form, they are turned in a lathe, and many small projections and mouldings are left, to give them greater neatness when painted and finished." But we are getting on a little too fast.

The hub is admitted to be the most important part in the whole wheel. Although, as we have seen in our Egyptian specimen, at page 42, that a hub, in an early day, fourteen and a-half inches long, was thought to be short enough—in which opinion our grandfathers seem to have nearly coincided—yet, it "has grown smaller by degrees and beautifully *shorter*," until it has become only six inches long, and proportionally small in diameter. To obviate and lessen the clumsy appearance, which a long hub presented to the eye, our ancestors turned down the front end of their hubs to a small circumference, which, without much reflection, when it became fashionable to have a short hub, was continued, until the front part of the hub immediately in front of the spoke was found splitting out, caused by the pressure of the spoke-tenon edgewise. To

obviate this defect, we now make our hubs larger at the ends than formerly, disregarding our old author's instructions to make them "thickest at the place where the spokes are inserted" altogether. This is as it should be; and, the practice continued, we shall hereafter hear less complaint about the hubs splitting all around at the band than heretofore.

Care should be taken in the selection of the timber for hubs. In this respect, manufacturers themselves are too remiss. They get a poor material, and yet, because it has *cost* them something, they think they *must* sell it again to somebody—a poor policy, did they understand their true interests. For our part, we never allow a party to cheat us a second time. Whether locust, elm, or gum is the best for hubs is still a mooted question among our best mechanics. Every one appears to have his prejudices as well as preferences. Probably, when the right kind of gum is found, it makes the best light hubs of any tree found in America; but, for general purposes, we think the close-grained and better sort of elm will be found to answer well. For cart-wheels, oak still maintains it supremacy, as exposure to the weather affects all other wood to a greater or less degree, which soon destroys its firmness. Locust, although it stands the weather well, is so hard that most workmen are ready to discard it at once, and, because of this quality, find it extremely difficult to make the spoke remain firm in the hub.

The same objection has always applied to iron hubs, which, under different forms, have been offered to the public for the past twenty years. These iron hubs have been succeeded by "the metallic hub," whose inventors have *dreamed* that their productions would soon drive from the market "the old wood hub, on account of its liability to check, allowing the boxes and spokes to work loose," etc. Some, with a little show of modesty, confess that there have been several efforts made at different times to substitute metallic hubs in the place of wood; but, up to the time of the latest production, all others have failed, from some *serious* objection, which has prevented their adoption.

For heavy carts, which we do not wish to consider here, they may answer all the purposes which the inventors may claim for them; but, for light work, we opine they will never be generally adopted. For the convenience of criticism, we will repeat the sentence in which one of these "most important and useful inventions of the age" is heralded:

"This improvement (the metallic hub) is in the mortises being straight, and all being of an exact size, leaving an open space between their ends and the inside box, *and also in compressing the ends of the spokes.* The advantages of these improvements are, that, by compressing the ends of the spokes, they can be driven easily, and, after having been driven a short time, the pores of the wood open [and what then?], the tenons swell out again, thereby forming a dovetail inside the open space, making it utterly impossible for the spokes to work, or ever draw out." A wonderful triumph—if true!

Now, these *philosophers* ignore some of the principles held by our best mechanics. It need not be mentioned, that spokes, set straight in a hub all around, are far less durable than where set zig-zag, particularly in light wheels. That by "compressing the ends of a spoke" will improve it, is another *improvement* too great for our discernment, and, when discovered, will mark an era the present generation will never live to see. But that "dovetail inside the open space" is only equaled in absurdity by the *idea* of the inventor!

We need not enter any further into the subject, as regards either iron or metallic hubs; they will not do the labor claimed for them, which too many have already learned in that dear school—experience—where only *fools* are said to learn. S.

PUBLIC CARRIAGES IN PARIS.

The number of public hacks in Paris is now nearly 4,000, all owned by one consolidated company, who are guaranteed in their monopoly by the city, but upon such terms as renders the enterprise an advantage to the public.

According to the old law, now extinct, the average price of carriages was 25 cents the course and 35 cents the hour. The price was stuck up in the inside of every carriage, and to cheat a man who could read was impossible. But the great extent of the city rendered the charge for the "course" too onerous for the company, and they demanded of the authorities a change of price. The authorities, once engaged on the subject, determined to change the whole system of charges. (You will remark that it is the city that fixes the prices, because where they grant a monopoly they reserve this right.)

The following is the tariff, according to the new law:

Within the fortifications of Paris, from 6 o'clock in the morning to 12½ at night.

	CARRIAGES,		
	Of two seats.	Of four seats.	Of five seats.
For 15 minutes.....	15 cents,	18 cents,	20 cents.
For 20 minutes.....	20 cents,	24 cents,	25 cents.
For 25 minutes.....	25 cents,	28 cents,	30 cents.
For 30 minutes.....	30 cents,	30 cents,	35 cents.
For 35 minutes.....	31 cents,	31 cents,	38 cents.
For 40 minutes.....	32 cents,	32 cents,	40 cents.
For 45 minutes.....	33 cents,	33 cents,	42 cents.
For 50 minutes.....	34 cents,	34 cents,	44 cents.
For 55 minutes.....	35 cents,	35 cents,	46 cents.
For 60 minutes.....	36 cents,	36 cents,	48 cents.
Ad'l h'rs (per five min.)	3 cents,	3 cents,	4 cents.

After 12½ o'clock at night till 6 o'clock in the morning, these prices are considerably augmented. A similar scale fixes the regular gradations. For fifteen minutes the price is 20 cents, for a half-hour 36 cents, and for an hour 60 cents. Additional hours, five cents every five minutes. After 12½, all carriages are rated the same, no matter what may be the number of seats.

Carriages taken before 12½, but arriving at their destination after that hour, are only paid the day tariff. On the contrary, carriages taken before six in the morning, and arriving after that hour, are paid the night tariff. If kept several hours, the tariff must change after the first hour.

The prices for going to the environs are nearly the same as above. But when a carriage is taken to the environs and sent back empty, the traveler must pay the tariff back.

Carriages have a right to demand four sous each for trunks or boxes, but nothing for small packages, such as may be carried in the hand. But, above two boxes, they can only take ten cents, no matter how many there may be. Coachmen are bound to load and unload packages.

Every carriage must contain in its interior a counter (a new invention) in a place indicated by the authorities. (This counter, which marks correctly the time and the sums to be paid opposite, is not yet ready to be placed in

the carriages; but, in the mean time, all coachmen will be bound to hand to every person entering his carriage a card which shows the number of his carriage, the tariff of prices, and the calculations ready made, by which there can be no mistake. A watch will be fixed up in every carriage until the counters are obtained.) The counter will be fixed at the moment of starting by the coachman.

When a coachman is called and retained for a certain time without finally being used, he will have the right to reclaim pay according to the tariff.

No coachman is allowed to demand a *pour-boire*—an extra fee for himself.

They shall be held to travel at the rate of 10 kilometres per hour. He must follow the route indicated to him by the traveler, but if stopped by any obstruction on the route, independent of the driver's control, the voyager must pay the detention.

When they conduct people to theatres, balls or railroads, coachmen must demand their pay before they arrive, so as to avoid a crowd at the door. In like manner, when they allow a voyager to descend for a visit at a place where he could escape, as, for instance, at a house opening on two streets, coachmen have a right, if they have no confidence in the good faith of their employer, to demand payment for the time elapsed.

These regulations do not apply to hire by the day, which will continue to be paid on the terms agreed on between the parties beforehand.

Thus it will be seen that, according to the terms of this law, there can be no contestations and no cheating, except as to the velocity of the carriage, and this difficulty will be remedied when the counters are placed.

The manner in which the Company guards against cheating, on the part of their coachmen, is this: Every carriage is numbered. At each station there is a clerk, who notes the times such a number leaves, and when another arrives. Every coachman, after discharging his load, is obliged to stop at the nearest station, and the stations are very close together. No coachman is allowed to pass a station empty.

To conclude, the reader will recollect that all these laws are inexorably executed, that all infringements are severely punished, and that in consequence infringements are very rare. If people are cheated with impunity, it is their own fault.

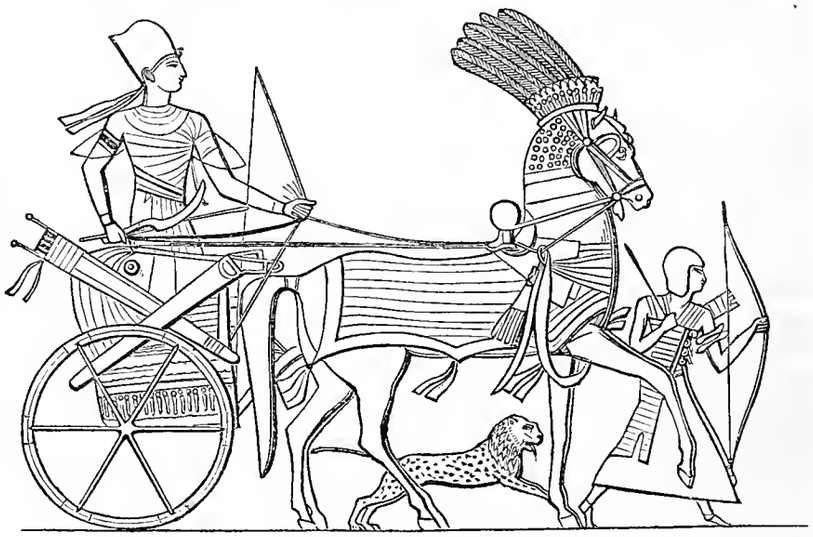
COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER V.

Chariots at dinner-parties—Their employment on hunting expeditions—Four-wheeled carriages used in religious ceremonies—The Arabian Plaustrum—Chariots of Egyptian contemporary nations—The numerous canals, with which Sesostris intersected Egypt, a detriment to pleasure-seekers—The Egyptian hearse—A speculative opinion as to its continued use subsequent to the invention of wheeled-carriages—Carts, a support for the tails of sheep among the Arabians—The value of chariots and horses in the time of Solomon.

ALTHOUGH the chariot was *the* vehicle, and the most important one in Egypt, since its use was indispensable in an expedition of war, and was the most prominent object at a celebration, yet it was not so exclusively employed. It had its domestic uses under various modifications; for pleasure, for religious worship, and for funeral occasions.

The most fashionable hour at which to visit appears to have been at noon,* at which time the invited guests arrived successively in chariots, in curricles, in palanquins, or on foot. The chariots of kings and princes were frequently furnished with a large kind of parasol; and the flabella, which belonged to royalty exclusively, when borne behind the king, answered the same purpose. When a visitor came in a curricle, or car, he was attended by a number of servants, one of whom carried a stool to assist him in alighting, others his writing tablet, or other articles wanted during the visit, and another, as we have seen illustrated, stands ready to take the reins from the hands of the rider, and to attend to the care of the horses.



AN EGYPTIAN HUNTING CHARIOT.

The Egyptians likewise employed a car, which served for the same purpose for which the dog-cart, illustrated on plate 5 of this volume, was designed. They frequently hunted in the open plains for game, the *chasseur* following in his chariot, and the huntsmen on foot. Sometimes he only drove to cover in his car, and, having alighted, assisted in searching for the game; but the more usual practice was, for him to remain in his chariot, and, when the dogs followed the game in an extensive plain, for him to urge his horses at full speed, and, intercepting it as it doubled, to discharge his well-directed arrow with deadly effect.

Four-wheeled vehicles appear to have been very rarely employed, and were probably confined to religious occasions. A singular example of this kind has been found on a mummy bandage, belonging to S. d'Athanasi. History informs us that, at Papremis, having placed the image of a god in a small wooden temple, gilded all over, it was afterwards placed in a four-wheeled carriage, and drawn by the worshipers in procession to the sacred temple. Herodotus tells a ridiculous story in connection with this four-wheeled vehicle, which it is unnecessary to repeat here.

The Plaustrum, or traveling carriage, was very much like the traveling chariot, and drawn by two oxen. It also had two wheels, and, as in the war-chariot, with six

* The student of the Bible will remember that Joseph said to his servants, respecting his brethren, on their visit to him in Egypt, "These men shall dine with me at noon."—Gen. 43, 16.

THE PLAUSTRUM.

spokes in each, and a pole and harness of the same description. An umbrella was sometimes fixed over this when it was occupied by females. The king's chariot also, in the absence of a cover, as all chariots were, had a similar umbrella spread over it; and the bow case of the Plaustrum, as seen above, with the bow in it, shows that it was necessary, in traveling, to carry arms for protection against enemies. The vehicle here given is supposed to be an Ethiopian one, in which is mounted a princess, on her way to pay a visit to the King of Egypt.

The chariots of contemporary nations, with whom the Egyptians were at war, were similar in form, and in the mode of harnessing their horses (even if they differed in the number of persons they contained, having usually three instead of the two in Egyptian and Greek cars), as may be seen in an example, where two unyoked horses are brought as a present to an Egyptian monarch by the conquered people of Rot-ù-n, and another found in Egypt, and still preserved in the Museum at Florence. Instead of horses, the Egyptians sometimes employed mules in their chariots, when used in towns or in the country, evidence of which may be gathered from a painting now in the British Museum.

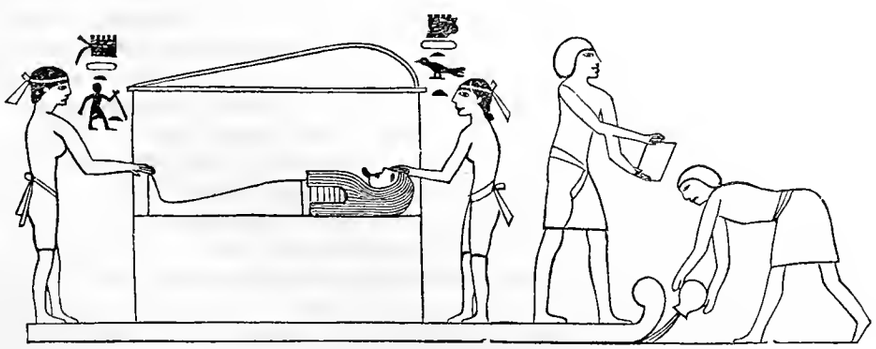
Besides the vehicles we have noticed for carrying the living, the Egyptians had a sledge-hearse for taking them to their last resting-place when dead. Several kinds of these have been bequeathed to us in monumental illustrations, one of which we give in this connection.

Its progress to the place of sepulture was attended by great pomp and ceremony. Large sums were expended on these occasions, which at this remote day may be thought extravagant, but which custom appears to have made obligatory on friends, as due to the memory of the dead. It forms no part of our design to enter into any particular account of the manner by which the Egyptians have labored to confer immortality upon their dead, in the process of embalming. This may be read by the inquirer in the pages of Rollin, as given on the authority of Herodotus, Diodorus, and others; but to omit to mention the hearse, so prominent in the funeral procession, would be unpardonable, besides leaving our subject incomplete.

The hearse was of more than one form, and placed upon a consecrated boat, upon a sledge, as shown, and drawn by four oxen and seven men, under the general superintendence of an individual who regulated the march of the procession. In this boat were placed several females, among whom was the widow, mourning and lamenting for the defunct with unrestrained license. Following the hearse was a long retinue of attendants, among whom the most conspicuous was a priestly functionary. One description of the hearse, such as we have here illustrated, from an Egyptian tomb, is curious, from its showing that grease or some other liquid was sometimes poured upon the ground or platform upon which the hearse moved, for the purpose of facilitating its progress, as was done in many instances where the sledge was employed in moving great weight. In another form of the hearse which has come down to us, may be seen alternately painted, on the sides of the panel, the emblems of Stability and Security, two by two (as on the sacred arks or shrines), upon separate panels, one of which was sometimes taken out, that the head of the mummy, borne within, might be exposed to view. There is something very singular in the fact that, on funeral occasions, this singular people should employ a sledge instead of a wheeled vehicle, for which we can only give a reason on the supposition that, from long custom in the use of that which in an earlier chapter we have assumed to be the first invention for the removal of any burden—the sledge—the religious or superstitious prejudices of the people were adverse to any change. All history has shown that in the conveyance of the body of man to its final resting-place—the grave—where any carriage has been used, such has been of a form peculiar to the occasion, and different from those employed in the common occupations of life.

Herodotus, who had visited Egypt and wrote from information derived from the priests, as well as from observations of his own, tells a cart story, that appears to be incredible to us. He says that among the Arabians there was a breed of sheep possessed of such large tails, and which were not less than three cubits (4 ft. 6 in.) long, that they would drag on the ground, to the great danger of ulcerating, had not every shepherd fortunately known enough of the carpenter's art *to prevent this*, for they [did] make little carts and fasten them under their tails, binding the tail of each separate sheep to a separate cart.—*Thallia*, 113.

Where so many shepherd-mechanics understood and practiced "the carpenter's art," so as to be able to build carts for their *long tails*, surely the public may be supposed to have been well supplied with



AN EGYPTIAN SLEDGE HEARSE.

vehicles, and this very multiplicity tend to cheapen the vehicle, and reduce the price below that demanded in Egypt, where, as previously noticed, the material—chiefly wood—was very costly. This may have formed one link in the chain of circumstances which led to the adoption of wheeled vehicles among other nations, for it is an undoubted fact that all our pleasure carriages are but an extended improvement upon a necessity, to which, originally, business gave birth.

At a later period (1 Kings, 10, 29), Solomon—although the use of chariots was forbidden by the Jewish Law—had horses and chariots imported from Egypt, the daughter of whose king he had married, respecting which Scripture says: "The king's merchants received these chariots at a price; and a chariot came up and went out of Egypt for 600 shekels"—or about $300 of our currency—the ordinary price of a chariot at that time, as 150 shekels ($72) was the price of a horse. The best chariots and horses at that time were still found in Egypt. With these Solomon's stables were supplied with the horses required for his fourteen hundred chariots and horsemen, which horses were so skillfully trained in Egypt, that they were made to perform very important services—(1 Kings, 10, 26). S.

The Home Circle.

For the New York Coach-maker's Magazine.

THE YOUNG WIFE'S DREAM.

BY MRS. B. A. TOUSLEY, OF ILL.

"The Young Wife's Dream!"—Ah! who may dare
The mystic veil to raise,
And read the mysteries hidden there,
Or on their beauties gaze?

Fond, love-born hopes! how bright they glow!
Embalmed in sweetness now—
The fragrance of the orange wreath,
That lingers round her brow.

Fair, white-winged seraphs gently stoop,
With folded pinions, near—
Breathing sweet thoughts of love and joy
Into her dreaming ear.

Down the dim future's distant flight,
What pleasing vistas shine!
Bathed in the soft and roseate light
Of love almost divine.

With joyous heart she seems to tread
Each life-path, all untried—
Leaning with trusting heart upon
The loved one by her side;

And, like the vine whose tendrils clasp
The strong oak's giant form,
Supported by his love she dares
To meet life's wildest storm.

Fair sleeper, may thy life-stream flow
Through fields of fairest flowers,
And brighter than thy happiest dream
Be all thy waking hours.

KATHARINE PENFOLD;

OR,

A GLANCE AT VILLAGE LIFE.

BY J. S.

A most intricate lane is Bower Lane, branching out into a multitude of bridleways, and (so to speak) lanelets, leading to isolated farms, cavernous gravel pits, and reedy pools—a rugged tortuous lane winding through orchard grounds, and hop gardens, and slopes of pasture land—now dipping into sombre hollows roofed by the meeting boughs of overhanging trees, now climbing to the top of pleasant knolls, from which you catch a glimpse of glistening waters creeping through the valley at your feet, and then piercing the very centre of the Farleigh woods, and leading you among the richest sylvan scenes, so wild, so seemingly remote from every sound of human life, that one almost looks to meet within its leafy precincts the fauns and nymphs and hamadryads of antique song.

Midway between the woods and L——, niched in a lordly group of elms, that, sweeping in a semicircle round the rear, form a glorious framework for the cottage and its sloping plot of garden ground, stands Bower Court, the fragmentary relic of a noble house. Fragmentary indeed it is, as though the architect had been a "snapper up of unconsidered trifles," gathering from the wreck of a majestical old mansion a picturesque and motley salvage; now laying hands upon a portion of the cloistered colonnade, and now appropriating entire a very jewel of a porch, nor scrupling for a moment to avail himself of quaint old gable ends, carved window frames, fantastic coigns, and such other waifs and strays as fell within his reach. And when he had combined all these, and when "boon nature" had beneficently hung a tapestry of shining ivy-leaves above the jutting porch, and gentle hands had trained some flowering parasites to weave a lavish net-work for the southern front; and when the summer sunshine shone upon its walls, and birds were caroling in the elms behind, and bees were humming in and out of the garden flowers, and "the murmur of a hidden brook," stealing along beneath dense hedgerows, made happy music to the ear, you may believe that, to the eyes of such poor book-worms as ourselves, the Court appeared the very hermitage a literary eremite would choose to wear away his summer hours in.

Swallows delight to make it their abode, and never do we pass it by but these exquisite lines recur to mind:

> "The temple-haunting martlet does approve,
> By his loved mansionry, that the heaven's breath
> Smells wooingly here; no jutty, frieze,
> Buttress, nor coign of vantage, but this bird
> Hath made his pendent bed and procreant cradle.
> Where they most breed and haunt, I have observed
> The air is delicate."

For many a year the Court enjoyed the reputation of a haunted house. Children would speak of it with 'bated breath; and elder folks, belated in their evening walk, would hurry past it with averted eyes, and tremble if they heard the ivy rustle round the porch. And haunted most assuredly it is, (though happily, in the popular belief, the sprites have long ago been laid to rest,) by a spirit delicate as Ariel, gentle as the "lady wedded to the Moor," and more than this, imbued with all the earnest love and filial tenderness of a Cordelia. A warm eulogium, and yet not

undeserved; as you yourself would honestly confess, upon acquaintance with its object. Knowing her, you could not fail to love her; and, loving her, you would be sure to superadd a feeling almost reverential for her devoted affection to the blind old man, her father, who depends for his support in part on her exertions as a daily governess, in part upon the slender stipend he receives as organist at L——.

In the whole range of our acquaintance, we do not know of two such delightful associates as our organist and his pretty daughter. The old man so full of anecdote; so sprightly in his wit; so copious and withal so justly discriminating, in his criticisms upon our literature, with whose riches Katharine's reading has familiarized him; so shrewd, and oftentimes so happy, in his judgment of individual character—a judgment built upon no better basis than the inflexions of the voice; so cheerful in the deprivation of his sight; so enthusiastic in his passion for "solemn sounds, sweet airs," and "old, old songs, the native music of the hills;" and so eager and thankful a listener to the comments of others upon the fine arts—painting and statuary more especially—and the beauty of the visible world, to him, alas! "banned and barred, forbidden fare." And Kate—silver-tongued and soft-eyed Kate—Kate with the lyric voice and cunning hand—where should we look to find so pleasant a companion for the winter fire-side, or the summer ramble, as the fair daughter of our blind old organist? Yet Katharine Penfold, with all her manifest and manifold attractions and accomplishments, is a confirmed and steadfast spinster. Offers she has had by the dozen, and, unexceptionable as many of them have been, she has uniformly met them with a courteous but prompt denial. "She has no wish for change—no thought of abandoning her pleasant home—no room for other love within her heart than that she cherishes towards her father," and, blushing as she diffidently stammers forth her thanks, our village beauty, by the very sooth and gentle character of her denial, invariably augments the passion she has so unwittingly inspired. Nothing, it seems, can win her from her celibate, or tempt her to exchange the arduous duties of her daily life for the ease and competence which the prosperous circumstances of some of her suitors would certainly insure her. He would be a proud and happy man who should confer his name on Katharine Penfold, for he would be, indeed,

> "Most richly blest
> In the calm meekness of her woman's breast,
> Where that sweet depth of still contentment lies;
> And for her household love, which clings
> Unto all ancient and familiar things,
> Weaving from each some link for home's dear charities."

Twice in the week Kate's homeward path lies through L——, and during all the pleasant summer months, at the coming on of twilight, her father meets her at the church, and tarries there till nightfall, filling that old and echoing pile with the throbbing music of the solemn organ—improvising voluntaries—weaving together fragments of masses, requiems, and symphonies, or reveling in the jubilant notes of some high soaring anthem song, in which the quivering voice of Katharine blends with the organ's tremulous swell—floats along the vibrating and dusky air—startles the sleeping echoes—murmurs high up among the massive rafters of the roof—rings audibly against the window panes—and, wandering outward through the porch, arrests the footsteps of the passer by, constraining him to pause and listen to the music of the blind old organist, and the carol, the clear exulting carol of his daughter's voice. And, when the gathering darkness warns Katharine and her father to depart, it is a chance if there be not some young and loving loiterer in the aisle below, waiting to proffer, with an eager importunity, his services as an escort home. And, if the offer be accepted, what a heavenly beauty is there in that tranquil summer night, to the buoyant fancy of the happy escort! with what a rare consummate charm are even ordinary and familiar objects invested for the nonce! Think you that, to *his* ears, music was ever so divine as the sound of Katharine's voice mingling in the conversation which beguiles their walk? Think you that ever distance seemed so brief as that which intervenes between the village and the "Court?"—that ever walk appeared so long, so wearisome, as the subsequent solitary retracing of his steps? Think you that, to the eye of shipwrecked mariner, ever star shone forth so brightly as shines the twinkling light from Katharine's casement, to which so often his averted glance is turned? or that the pitchy darkness of a winter's night seemed ever so profound as that which settles down when intermediate trees obscure the gleam of that far-shining light? And think you that, with so many "shaping their services to her behests," Kate's resolute adhesion to a single life will still remain unshaken? We must confess we entertain a half mistrustful feeling on this score. But, most assuredly, if ever so important an event as Katharine Penfold's marriage should take place, we will not fail to duly notify the occurrence, with ample details of the ceremony, to the readers of our Village Annals.

Pen Illustrations of the Drafts.

LYON'S BAROUCHE.

Illustrated on Plate XV.

We are indebted for this fine draft to Mr. Chas. T. Lyon, foreman in the carriage manufactory of our friend, J. L. Smith, Esq., in Twenty-ninth street, New York city. It, as may be seen by the draft placed on the block by the designer himself, possesses many original features of interest, and is drawn, with critical exactness, to the half-inch scale, the track of which is that of the State of New York, 4 feet 8 inches outside to outside. The draft, to which our engraver has done ample justice, tells its own story so well, that any lengthy details, in this instance, would seem to be entirely superfluous. To tell a coach-maker how to paint a job and with what to trim it, looks very much like undertaking to teach a learned man his alphabet—a thankless task. We will only add, that the body is technically "a paneled" one, and that the spokes, artistically shown, differ from any we have ever seen drawn before, and from which we hope our draftsmen will get "*a new wrinkle.*"

THE DALZELL CRANE-NECK PHÆTON.

Illustrated on Plate XVI.

Our readers are favored this month with this fine draft of a crane-neck phæton, through the kindness of Mr. David

Dalzell, of South Egremont, Mass., from a drawing made by his son, who, should he continue to exercise his talent, will, some day, make an artist in this line equal to the best. Contrasted with the crane-neck phæton in our August No., this will be found to present some varied and interesting features, and will, on comparison, we think, increase the reader's stock of ideas, which may be said to constitute the chief design of this publication. We have still another carriage of this description sent us from Albany, which we will give soon.

LIGHT ROCKAWAY.

Illustrated on Plate XVII.

Our artist, Mr. Britton, has this month furnished our plate department with a very neat and tasty Rockaway. Although, when completed, it presents no new features, yet it may prove of interest to some of our subscribers. We merely give it for the sake of variety and to gratify the desires of a number of our correspondents, who are calling for "more light Rockaways." We trust that in future, instead of calling for, some of our ingenious friends will be "so kind, so condescending and *so liberal*," as to send us something in this line which will be really new. Here is a fine field for the exercise of dormant talent, and earning our prize offered in the June No.

The back-quarter panel of the draft under consideration may be either made with a panel or with a solid side, and moulded off as seen in the draft. The space back of the door—supplied with a leather curtain in this instance—may be filled with a panel in which an oval window may be put, making a very handsome carriage of it. A dark green or blue cloth lining, faced with patent leather, stitched, instead of lace, will make a nice finish, for the inside linings, for those who prefer cloth to leather. Track 4 feet 8 inches.

FAMILY PHÆTON.

Illustrated on Plate XVIII.

This draft has been sent us by Mr. C. F. Richmond, of West Troy, N. York. We cannot say we exactly like it, still we are told that when constructed the vehicle makes a very fine appearance, and that this kind of carriage has found a ready sale in that vicinity. We think that it will furnish a subject for study, and therefore not be without its usefulness. Track, 4 ft. 8 in.

PORTER'S SPIRIT OF THE TIMES.—This interesting weekly, published at 346 Broadway, at $3 a year, comes to us regularly, and pleases us very much. The rich vein of humor, in which its more pretentious articles are written, is very useful in removing the rough edges which the cares of business are apt to leave in one's mind in the pathway of life. Among all our exchanges, there is none we receive more interesting than this.

Sparks from the Anvil.

EXPERIMENT WITH THE DOUBLE-PERCH AND ITS RESULT.

THE credit of first using the double-perch in light vehicles is claimed by Mr. D. J. Dusenbury, carriage-maker, New York city. During a lengthy conversation with that gentleman the other day, we learned some facts from the school of experience which may prove suggestive as well as valuable to our readers.

The inceptive idea of adopting a double-perch, in coupling the axletrees of buggies, appears to have been suggested by its employment in a country farm wagon, in which, and other business wagons, it had figured some years previously. Having experimented for one entire year, our friend gained much valuable knowledge of its practical advantages over the old single-perch, which knowledge it is our intention to impart to the reader in the following detail.

Suppose, for instance, the man, who is in the daily use of a very light trotting buggy, could, whilst his buggy was being driven rapidly over the ground, place his hand *under* the central part of the back-axle where the single-perch is coupled, he would experience such a tingling sensation in his fingers' ends as would soon convince him, were he a man of reflection, that that point was a very improper place at which to couple the perch, arising from the fact of its being the point equi-distant from each wheel, and where the greatest vibration or tremor, imparted to the axle by the two rotating wheels, is concentrated. At this stage, a studious mechanic would naturally conclude that, in view of the fact, it was a very improper point at which to couple his perch to the axletree, and begin to look about for a remedy. If, like our friend, he is a deep thinker, the thought would soon suggest itself, that, were the perch removed from the centre, out, nearer the wheel, and a duplicate one put on the opposite side, this *trembling* motion would be greatly lessened, since it requires but little argument to convince a person, of even little discernment, that the nearer the perch is coupled to the wheels the less vibration in the axle will be imparted to it, consequently the "carriage" must be *stiffer*.

Fig. 1.

Before proceeding further, it will be proper that we illustrate the different modes in which the double-perch is coupled to a back-axle, and that, too, in chronological order.

In figure 1, it is intended to be shown as dove-tailed into the axle-bed from the under side, which, when "ironed off," is bound—the perch plate being continued along and bent to fit *under* the back-axle, by a plate-clip passing over the "bed" and through a hole in the end of the perch plate—thus securing it firmly with a nut, as may be seen in the

diagram. Experiment soon demonstrated that a dove-tailed perch-end possessed a weakness far from perfection, as it was liable to break even when well ironed.

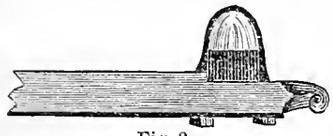


Fig. 2.

In the second experiment the perch was made to extend under the axle, as in figure 2, and was coupled with a clip, as illustrated in the diagram. This was found to answer a good purpose, but presented to the eye such an undeniable clumsiness as to unfit it for a very light job. This mode, however, is still employed by some of our best manufacturers.

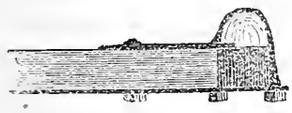


Fig. 3.

In order to improve its appearance, a third plan was adopted, in which the back-end of the perch butted up against the iron axletree. To secure this properly required some ingenuity. Should the reader closely examine the illustration, figure 3, he will discover a plate, indicated by a dark line, extending downward, through to the *under side* of the perch, where, as may be seen, it is secured by nuts, as in the usual way. This not only forms the neater, but the most approved coupling for a double-perch yet adopted.

On the visit referred to, we were shown a buggy that, after three years of hard usage, to all appearance was as firm as it was on the day when first it went upon the road, coupled in this last manner.

There is one great advantage gained in using a double-perch. This is, that should your horse still retain a little too much of the wild nature, which Rarey's art promises wholly to eradicate, running away and spilling you out, whereby the risks on your life policy would, if before known, be increased seventy-five per cent., in that case, even, you would be safe. Another advantage is, that should your wagon upset, the two "off" or near wheels, as the case may be, would both go over together, pitching you out *scientifically*, the stiffness imparted to the double-perch having saved your life, and a large sum of money in repairs to the craft; whereas, had there been only a single perch, *its weakness* would have sent the front wheel off the ground first, leaving the hind one to follow after, the weight of which would have broken the perch and been followed by the immediate destruction of the whole vehicle, and, perhaps, given a job to some undertaker, with so little sorrow on his part that he would have chuckled over your death.

To prove the theory put forth in this article, let any one take two buggies in a repository: the one with a double-perch, the other with a single one, and, seizing the hind wheel of the double-perched vehicle at the top, give it a shaking, when it will be seen that both wheels—the front and back of the same side—in fact, all four, oscillate together, or evenly; taking the single-perch buggy in the same way, it will be found that whilst the back wheel oscillates outwards and towards you, the front wheel is oscillating in the opposite direction, or inwards. It will thus be proven that, compared with the double, the single-perch is very weak, and that, in upsetting, a vehicle with two perches is less liable to break in turning over than the single one, where the single perch is sure to be *twisted* in two pieces, caused by the weight of the front-wheel being at a certain point, and that of the back one at another, at the same time.

As a further experiment, harness a horse to a wagon, drive off, turn the wagon suddenly around; if your wagon has only one perch, the chances are that it will either upset, or the sliding of the hind wheels has prevented such a catastrophe; whereas, in the other case—the double-perch—the back wheels will follow the front ones in regular succession in turning over, the passenger coming out "right side up, with care," escaping such disastrous results as are sure to follow where a wagon overturns. Try it and see.

S.

Iron Manufacture in Scotland.—During 1857 there were 128 blast furnaces in operation in Scotland. The production of iron for that year considerably exceeded that of any previous year, and the stock of metal on hand is at present about 190,000 tons—63,500 tons of this quantity being in store, while the rest is in the makers' hands. The amount shipped to other parts of the world during the year exceeds that of the last by 20,000 tons; but the home consumption has lamentably fallen off for the last two or three months.

A very fine quality of iron is obtained from the ore of Lake Superior mines. As the ore is plentiful in that region, a great increase in the manufacture of the metal is anticipated.

Paint Room.

For the New York Coach-maker's Magazine.

PRIMING.

BY JAMES SCOTT.

When about to erect a house, a careful builder will be very particular in laying the foundation, to secure, as far as possible, strength and permanency—particularly as to the materials employed, and the manner of using them. I cite this fact as affording a useful lesson to carriage-painters of the "pitch in and drag out kind"—the fast men of the craft—the "three coats a day and stripe it" fellows, and to those young chaps who are undergoing the delectable initiatory process of learning the trade. In painting, the priming is the foundation, and, as in the case of building a house, great care should be exercised in preparing it, otherwise, the work is liable to crack or peel off, in which case the purchaser of the job uses strong language to the "boss," who, in turn, is not scrupulously polite in calling *your* attention to the subject: you, probably, apostrophize the

varnish, in terms not *very* complimentary to the skill of the manufacturer, and so you have it *ad lib.*, when, if the priming had been properly attended to, you might be enjoying unruffled serenity of temper, and a consequent good appetite and improved digestion. Use no paint to prime with unless it is mixed for that purpose expressly. Don't, when you need it, seize the first lead color you find on the bench, or take the drippings of half a dozen cups and mix them together; but take keg lead, a little lamp-black, if you choose, thin it down with oil—boiled, if you have it, if not, put in a small quantity of dryer—mix very thin and apply a light coat. If the work is not in a hurry, use no dryer, as it is better without it. Turpentine should not be used in priming—remember that!

DRAWING, AS CONNECTED WITH PAINTING.

To every painter who has no practical knowledge of the art of drawing, and who does not consider himself too old to learn, I would recommend the study of this very important acquirement—important to you, because of its intimate and absolutely necessary connection with your trade; at least, the ornamental part of it. Many of you, I am well aware, consider it of little consequence, so long as you can procure patterns from the work of others; while some who are employed in large factories, where one man does it all, very seldom have any ornamenting to do, and, therefore, have no desire to learn. Now, suppose, for example, you should take a notion to go South or West, for the purpose of bettering your fortunes. You *can't* ornament, but otherwise you are a first-class painter. Well, sir! let me tell you that unless employed in a large shop in some city, where you will find wages no better than in New York, you would actually find it difficult to procure a situation; and, if you did, you would find men who could not paint as good a "surface" as you, but, being able to put on an ornament, were getting three to five dollars per week more than you could command. This is not a mere assertion, but a *fact*, which the writer of this—an Eastern man—who has traveled extensively through the West and South, has learned by bitter experience. In the States of Ohio, Indiana and Illinois, I do not know of a single shop where any job, which has panels large enough, is not ornamented, and, in a great number of instances, most splendidly is the work executed. How can it be otherwise, where so much of it is done! The practice of striping is also carried to great perfection; indeed, Western and Southern painters are unexcelled in this delicate art, anywhere. I have seen "carriage-parts" literally covered with striping and fine scroll work, and yet, so neatly done, and with such just regard to harmony of colors, that the most refined taste could find no cause of complaint. It has been ascertained by experiment that this style of work is strictly in accordance with the popular taste, as is evinced in the fact that a prominent manufacturer in the capitol of Ohio, who tried to introduce the fashion of painting light-work a plain, unrelieved black, was compelled to take the work from the repository back to the shop, and have it striped, as it would not sell without it.

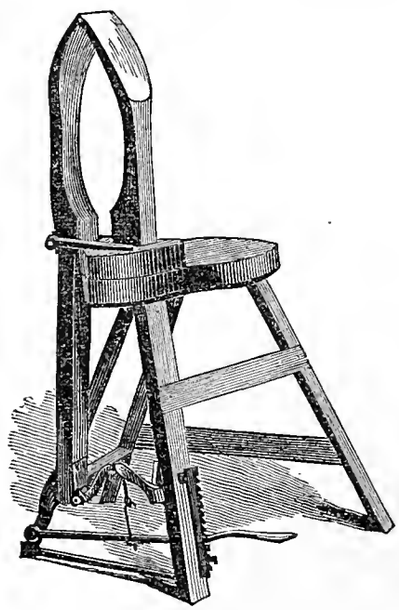
So you see that, unless you can stripe well and paint a good ornament, the West or South is no place for you. Even in the Eastern States, where, comparatively speaking, little of it is done, it is a great advantage to a painter, pecuniarily and otherwise, to know how, and I contend that a knowledge of drawing is necessary in order to do it well. If you can design your own ornaments, they can be painted in half the time required to paint the design of another. As you don't have to consult the pattern for every light and shade, there is no hesitancy—no uncertainty—you know where to put every touch; besides, it is a vast deal of satisfaction to feel conscious that the work is the creation of your own genius. There is no danger of the taste for ornamentation ever going out of fashion. It is steadily on the increase, not only in carriage-making, but in manufacturing of all kinds, where it can be applied.

LAYING GOLD LEAF.

English varnish makes a very good and very convenient sizing for gold leaf. Mix sufficient white or yellow with it, to enable you to see the design when put on the panel. Add japan enough to dry it to suit you as to time. It requires to be but very *slightly* "tacky" when you apply the leaf, otherwise the surface will be rough and ragged. As several of the ornamental designs in the August number are to be done in gold, this item may be of service to those who need the information it contains. In this connection, read the last paragraph of the "Paint Room" for September.

Trimming Room.

A NEW STITCHING HORSE.



PONTOTOC, MISS., Aug. 21, 1858.

MESSRS. EDITORS—*Sirs:*—Inclosed please find a draft for a new Stitching Horse for trimmers. It is one of my own getting up, and I have worked with it for some time, and think it one of the best for a trimmer that I have ever seen. The two large joints were taken from an old folding-step, and the small one is a stump joint; so you can see that the time and expense in making are no more than the costs of the common strap-horse. If you think it worth while, you can put it in the Magazine. I think you can get a few subscribers in this place, and with them I will send you the subscription due you. The first number did not take here, because S * * * * * * does not send his Magazine to us now, and they are afraid you will do the same, but I have received yours all right so far, and we

are beginning to think it is all O. K., and you can put me down for a Magazine as long as you print them.

Yours, respectfully,

Lewis J. Heist.

A Great Cry and a Little—Hair.—Among the latest "kicks" in England is an attempt to substitute the short tan, or hide hair, for the usual curled hair, for carriage cushions, by purifying, stiffening and dyeing it. It is purified by boiling in a solution of soda of commerce, quicksilver and water. Before the purifying process is attempted, that stiffness may be imparted to the hair and add to its bulk, the hair is immersed in a glutinous solution, by boiling down fleshing in water, or dissolved glue. When this is prepared, pig hair is mixed with the tail hair of cows and the mane hair of horses, and used as a stiffening for cushion seats, beds, &c.

VALUABLE RECIPES.

RECIPE FOR MAKING A LEATHER BLACK.

Trimmers often find that copperas, iron filings mixed with vinegar, &c., when applied, leave the pared edges of the leather used as on valances, &c., of a gray color. A superior article for the purpose is found by taking

1 oz. of the extract of Logwood, costing		15 cts.
¼ " Bichromate of Potash,	"	6 "
1½ " of Copperas,	"	4 "
The whole costs		25 "

Dissolve the above ingredients in two quarts of hot water, when it will be ready for use.

RECIPE FOR MAKING LEATHER VARNISH.

Take 1 quart of alcohol, ½ pound gum shellac, 1 ounce of rosin, and ½ an ounce of camphor; set these ingredients in a warm place, and stir them up frequently until they are all dissolved, then add 2 ounces of lampblack, mixed with a little alcohol; it is then ready for use. If too thick, thin it with alcohol.

In addition to the above, we have purchased, at some expense, the secret for making a reviving polish for patent leather, from the English discoverer, who is now on a visit to New York. Several of the coach-makers here have bought *the secret*, which is one of the finest articles, for the purpose, ever discovered. We would like to have unfolded this also in our Magazine, had not the discoverer interdicted us; but, the best we could do was, to have the permission to sell the recipe to our individual customers as they apply to us. This we will forward by mail on the receipt of $1, which is less than half the price charged by the inventor. We pledge our word, that the secret is worth to you a great deal, and will do more than you anticipate, which is to make leather look almost (not to say quite) equal to new, and will reimburse you on the first old job that comes to your shop. Address the publisher of this Magazine, 106 Elizabeth street, New York city.

EXPLANATION OF STITCHING PLATE B.

DRAWN FROM DESIGNS BY H. DEAN, NEWARK, N. J.

Nos. 1 and 5 are half figures of patterns for the centers of boot sides.

" 2, 3 " 6 are figures for dash corners and boots; No. 3 being a half figure.

" 4 is the half figure for a pattern for cushion facings.

The New York Coach-maker's Magazine.

OCTOBER 1, 1858.

E. M. STRATTON & M. G. TOUSLEY, Editors.

TO READERS AND CORRESPONDENTS.

"O. G. E., of O."—You are right; let those who wish to read our Magazine subscribe and pay for it. That Western Magazine has not "come out" since the publication of the June number, and its "old friends" are very uneasy in consequence. There are too many, we fear, who did not heed Mr. Tousley's timely warning.

"O. R., of N. Y."—The gentleman you allude to had nothing whatever to do with our ornamental designs for August, and we are happy to find your opinion as to their merits *original*, and confined to Mr. O. R.

"T. P."—It would be a hard task to find out your whereabouts, as your letter did not give, and the post mark failed to show, in what State you reside. You and others, who have fallen into the same error, are informed that no show chart is given in with the Magazine as a part thereof. See notice in the June number.

"G. A. B.," of Berlin, Germany.—Your letter, "all in Dutch" to us, at a cost of 32 cents, an answer to which would cost us the like sum, asking us to get a foreman's situation in some establishment for you, is received, but as you did not comply with our *conditions* we cannot with your *requests*.

"T. H. M., of Ga."—Suppose you were to draw one of our ornaments on a panel with paint or varnish, and before it gets too dry give it a coat of bronze, or other metallic substance. You would then have "a metallic ground" on which to lay the scroll work of the shield, or to paint in relief.

"H. & N., T. H. and others, in Western N. Y. and O."—The reason your numbers for Sept. were not mailed is owing to our agent being taken sick before he could make out and send in his list of names to the office. It is very much to be regretted on our part, but as, under the circumstances, it was unavoidable, you will please take our explanation as satisfactory, coupled with which we promise to send them regularly hereafter.

"R. M., of N. J."—The geometry of carriage architecture, by some termed, erroneously, "the French Rule," will be commenced in the next No. It is given by a "Practical Body-maker," whose name, for certain reasons, we suppress. It has been simplified to the simplest capacity.

"Lua Delinn."—"Abgarus" will appear in our November issue. Many thanks for your fine production.

"J. S."—The "Red Mustache" is filed for our next No. It came too late for this. All articles intended for the literary department of any certain No. should reach us previous to, or on the 10th day of the month preceding its date, when the first form goes to press.

"A Wheelwright."—"Fuller on Wheel Carriages" is said to be a very fine work. We have never seen it. It was published in England for subscribers only, and is now very scarce. We believe there are but a very few copies to be found in this country.

THE ATLANTIC TELEGRAPH CABLE.

Although the present article has but little connection with coach-making, yet, ours being a journal of progress as well as one of improvement, we should incur the charge of being behind the age, were we to remain silent on a subject which has monopolized the thought and diverted the attention of a vast majority of the population of our free Republic for a few weeks past. Such has been the excitement that, carried away with the idea, we expect soon to hear of some genius having hatched out a cable style of trimming for carriages, and even the absurdity of naming something new "a cable buggy" is not improbable in this nervous age. Where this "cable" fever will stop is a mystery which the future only can unravel. We are already bored with cable canes, cable chains, cable charms and *cable* other humbugs, heralded to the gullible public by the smart tradesmen of this "town," who expect by *the notion* to gather in the "tin" to their own pockets. *O tempora! O mores!*

Although we have witnessed a great many public celebrations in New York city, that of September 1st, in honor of laying the cable, has taken all former transactions in that line down, and probably it will be a long time before we have another equal to it. That, after all, was a lucky circumstance—the failure of the first and even second attempt to lay the "string"—as most people had come to consider the project as virtually abandoned, so that, when the work had really been accomplished and it was heralded through the country, "the cable is laid," scarcely any would credit the report—we say it was lucky, for the excitement upon which the public live was far greater than it would otherwise have been, from the fact that nobody expected it. Coming like a thunderbolt, the public were amazed and astonished when they found it a *fait accompli*, and too good to be true. With what avidity the newspapers, where everybody *looks for facts* now-a-days, were read the next morning. The very countenances of our citizens told that something "was out;" in them could be read that some important event had transpired.

In plain fact, the number of days previously required to get news from England had already narrowed down to a few minutes, and old uncle John Bull and his nephew Brother Jonathan were shaking hands, and "the peoples" were discussing the improbabilities of there ever being any more fallings out between them, although, but a few days previous, "the war dogs" of all Yankeedom were *barking* at the old Bull, for interfering, with our "vested rights" on an element where the "critter" had often before been *ring-bolted*. There was only one thing which lessened *our* pleasure on that occasion. We had imbibed in *babyhood* so much of the *amor patria* spirit that we were not willing that *Mrs.* Victoria should have her say first through the "string," but, since our bachelor President has at last surrendered to "the hoops," we, as loyal "high private," must follow suit. As a record of history, we are sure our readers will pardon, we give the two messages of the Queen and our President in full.

THE QUEEN'S MESSAGE.

To the President of the United States, Washington.

The Queen desires to congratulate the President upon the successful completion of this great international work, in which the Queen has taken the deepest interest.

The Queen is convinced that the President will join with her in fervently hoping that the electric cable, which now connects Great Britain with the United States, will prove an additional link between the nations, whose friendship is founded upon their common interest and reciprocal esteem.

The Queen has much pleasure in thus communicating with the President, and renewing to him her wishes for the prosperity of the United States.

THE PRESIDENT'S REPLY.

Washington City, August 16, 1858.

To Her Majesty, Victoria, Queen of Great Britain.

The President cordially reciprocates the congratulations of Her Majesty, the Queen, on the success of the great international enterprise accomplished by the science, skill, and indomitable energy of the two countries.

It is a triumph more glorious, because far more useful to mankind, than was ever won by conqueror on the field of battle.

May the Atlantic Telegraph, under the blessing of Heaven, prove to be a bond of perpetual peace and friendship between the kindred nations, and an instrument destined by Divine Providence to diffuse religion, civilization, liberty, and law throughout the world.

In this view, will not all nations of Christendom spontaneously unite in the declaration that it shall be forever neutral, and that its communications shall be held sacred in passing to their places of destination, even in the midst of hostilities. James Buchanan.

There are some persons who anticipate that the "cable" will be a great benefit to the public, the majority of whom are far from being wealthy. We hope it may, but we think that, in the hands of a few rich capitalists, the benefit will be all one-sided, as they could afford to pay the high tariff, monopolize the speculations in some descriptions of merchandise and make us pay their own prices. We, in such a case, can easily imagine where the benefit will be. But we hope for better things. We were sorry to find that our fraternity were not represented on the occasion we have spoken of, although many mechanical operators lent interest to the procession. But our noble craft will never appear in a proper light before the public, we fear, unless some master-spirit takes the matter in hand and organizes a society in New York, with branches elsewhere, with the end in view of benefiting the employer and the employed, which we think is much needed, as the almanacs say, "about these days."

SCIENTIFIC KNOWLEDGE—ITS ADVANTAGES.

"We divide human knowledge into two great branches—the science which deals with abstract truths, and the science which treats of real existence."—Lord Brougham.

The cultivation of the intellectual faculties is one of the most noble and praiseworthy employments of the human mind. It has been well remarked by a celebrated writer, that the Creator has placed within us the germ of all the arts, and placed them there, too, for the most noble pur-

poses. This principle, which we designate as art, requires a scientific application, that is, practice, to develop its beauties the more perfectly. This scientific knowledge can only be learned advantageously in the school of practice. To this school, every man, woman and child has been invited by the Great Architect himself. We say, then, to every man, the young man especially, who is coming on to the stage of life, you should not be satisfied with taking second-hand theories of perhaps some erroneous speculator, without a personal investigation into the principles involved, and the reasons why such and such mechanical results are brought about. Even should you, like an ancient painter, stumble upon a successful accomplishment in a fit of despair—never mind, a long and persevering pursuit in a straightforward direction *must* finally accomplish a victory. Viewing this subject as we do, whenever we find a youth, or those of more matured age, of a studious and industrious turn of mind, we are led to value and respect its possessor.

To paint the advantages to be derived from scientific knowledge, we may relate the story told of Archimedes. One day, as the King of Syracuse, Hiero, was in conversation with the man of investigation, the latter explained to him the wonderful effects of the power of motion, and proceeded to demonstrate "that with a certain given power any weight whatever might be moved." To test his scientific accomplishments, he selected a galley in the port of Syracuse, and caused it to be drawn on shore, with great labor, by a great number of men. Afterwards he ordered the same galley to be heavily laden with merchandise and men, and placing himself at some distance, and sitting at his ease, without trouble, or exerting his strength in the least, by the simple turning of a machine, which he had provided with cords and pulleys, he brought the galley to him upon the land with as much ease, and as steadily, as if it had floated upon the water. Had Archimedes been as inactive as have been many since, he might never have been heard of after his death. Think of this, ye who are longing after a deathless fame, and let not the magazine of useful knowledge—crude though it may be—planted within you, perish in obscurity.

As Rollin has observed, it is true that all mere geometrical or algebraical speculations do not relate to useful things; but it is also as true, that most of those which have not that relation conduct or refer to those that have. The mixed mathematics, which descend to matter and consider the motion of the stars, the perfect knowledge of navigation, the view of objects by the assistance of telescopes, the increase of motion, the nice exactitude of the balance, and other similiar objects become more easy of access, and in a manner familiar with the generality of mankind. Archimedes labored long, doubtless in obscurity, but it was the certain fruit of his labor which brought knowledge to light, previously hidden in obscurity, and inspired the Romans with astonishment and despair when afterwards they besieged Syracuse. It is very true that the discoveries in modern science have, in a measure, eclipsed the productions of earlier inventors, but let it never be forgotten that Archimedes, with his powerful machines, postponed the fate of a weaker nation, in spite of the army of Marcellus, backed by the Roman Republic, for many years.

Galileo, Newton and Harvey, and others in this same beaten track, have investigated and experimented, and though often without success, yet finally they have triumphed. By this triumph they have founded for themselves monuments more lasting than even the pyramids, and as enduring as time itself.

In conclusion, we admit that it is a melancholy truth, that men of genius have, as a general rule, never much benefited themselves pecuniarily; continual experiment has absorbed the small income of their lives, and in the end, as we have painfully seen, some one, whose skull has been too thick for even one original idea to escape from, has yet covered a brain sufficiently knavish to rob the unsuspecting genius, at the moment when he had hoped to have secured the reward due to a life of labor. Under these circumstances, the consciousness of having performed one's duty must be received as a compensation for years of study.

THE VILLAGE BLACKSMITH.

Who has not heard of the village blacksmith, that ubiquitous mechanic, whose character has proved a fertile theme both for the painter's pencil and the poet's pen? Their *likenesses* of him have been as different as the caprices of his delineators have varied, but they seem to agree in one trait—that he is a good-natured and clever sort of a fellow, and always pays his debts, which is more than can truly be said of some men of greater pretensions, totally ignoring Captain Rumsey's assertion, that "to call a man clever is in effect calling him a rascal." His idea was, that a clever man is a goose for the public to pluck, and, consequently, must always be poor. But let us hear Longfellow's description.

"The smith a mighty man is he,
With large and sinewy hands;
And the muscles of his sinewy arms
Are strong as iron bands.

His hair is crisp and black and long,
His face is like the tan;
His brow is wet with honest sweat,
He earns whate'er he can,
And looks the whole world in the face,
For he owes not any man."

The village smith is "an institution," no doubt, in many country places, but instead of—as Longfellow has it—his

"Going on Sunday to the church,
And sitting among his boys,"

we fear that too frequently he may be found, about that hour, lounging in some country tavern, spending his money for that which ruins his character, beggars his

family, and ends in his premature death. The remark is too near the truth, that "wherever you find a blacksmith's shop in a village, close by will always be found a rum hole." This, of course, *will not* apply to coachsmiths—they are supposed to be "all right." But we are digressing.

We intended to say that, by invitation from Messrs. Williams, Stevens, Williams & Co., of 353 Broadway, we, in company with our brother editors, the other day, took "a private view" of the English painter's (Herring's) "Village Blacksmith," which, as the exhibitors declare, "challenges the severest criticism." The artist has painted the horse to perfection, each muscle marked in its lines and precise in its conformations, the skin, with exquisite texture, seems life itself, and the posture and general expression are true to the smithy. The smith is painted at the moment of removing a worn-out shoe from the horse's hoof, the animal looking around upon his tormentor with more complacency than is natural to most of his kind. His "gude wife" is seen entering the smithy with her husband's lunch—in which is included a bottle, another substitute for Pandora's box—with a smiling look presumed to be unusual in any American lady called to perform the same service. The hound—what use has the smith for a hound?—in the foreground seems to partake of the pleasant feeling pervading the entire group.

In criticising—not "severely"—we must say the general appearance is a little too much in the parlor order for our taste, and the horse-shoes hanging upon the walls are not in a manner consistent with American ideas and practices in such cases, and the "exquisite bit of landscape seen through a window" is far from natural, being altogether of a "whitey green" cast. But, "severe criticism" is not all the exhibitors wish from us—they wish us to say that, for artist's proofs before letters, the subscribers to the engravings to be printed can have a picture, 24×30, for $30, India proofs for $20, and plain proofs for $10, by calling at the office above named, which, considering the character of the two works (the painting and the engraving), is very reasonable.

A HINT TO WHOM IT MAY CONCERN.

We translate from the "*Mercure Universel*," published in Paris, an article headed, "*A Word on the subject of Good and Bad Work in the Manufacture of Carriages*," which we insert in our present number, because we consider it applicable to our business in this country. Cheap! cheap!! is the word with many of our customers, forgetting that what are called *cheap* cannot be *good* articles, and that therefore *cheap carriages* cannot be *good carriages*, and that the so-called cheap articles are always the dearest. It is not our intention to write a long article on this subject, and we will therefore close these few remarks with the concluding lines of our translation—"*We can never obtain a good article without paying for it.*" A hint to the wise is sufficient.

THE EFFECTS OF—WHAT?

With sorrow we learn, from letters recently received at this office, from the "west of the Alleghanies," that "our old friend" did, with the publication of the June No., abandon *his* "me and my cause" "Pioneer," and by the act prove himself a "traitor" to that portion of the craft who have paid him for a year's subscription, commencing with his January issue, without even so much as intimating such a thing. A man who so loudly professes to "part with everybody on the square" is expected to do better things.

Perhaps, however, "our old friend" *forgot* that part of his duty, and anxiety for his reputation would lead us to give him the benefit of *any* extenuation, even though it be merely superficial. Whether "our friend Kidder," or "our other friend, Acby," is cognizant of how the matter stands, we have not learned, but such disinterested benevolence as they have put forth, heretofore, as "busy-bodies in other men's matters," demands that they come forward, now, and tell the public all they know about it.

Last October the "Pioneer" told his "thousands of true friends" (?) that if he did not "defeat our [purely imaginary] designs it would be because he had *no perseverance*, and his Magazine *no friends*." In view of his former assertions and his subsequent action, we leave the public to draw their own inferences.

As a crumb of consolation, to such as may be interested, we would state that, a few days since, "our old friend" was "'way down South," "driving our own buggy," peddling patents, as he says, having "realized $40,000 by the sale of *rights* in various parts of the country." For the benefit of "*our* old friends," we hope it *is* true.

TO THE COACH-MAKING PUBLIC.

We are now prepared to receive orders for charts, illustrated with any number of coaches, rockaways, buggies, gigs, sulkies, wagons, etc., and of any size, with your card in the centre. You can have a sheet twenty-eight by thirty-eight inches. For

100 copies	the price will be	. .	$15 00
500	" "	. . .	65 00
1,000	" "	. . .	100 00

Charts to be forwarded by express when ready, accompanied by the bill, and payable on delivery. Where the money is sent in advance—that is, with the order—five per cent. deduction will be made from the above prices.

Address E. M. Stratton,
New York City.

For the New York Coach-Maker's Magazine.

ON SCALE DRAFTING, AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, OF BRIDGEPORT, CONN.

(*Continued from page 79.*)

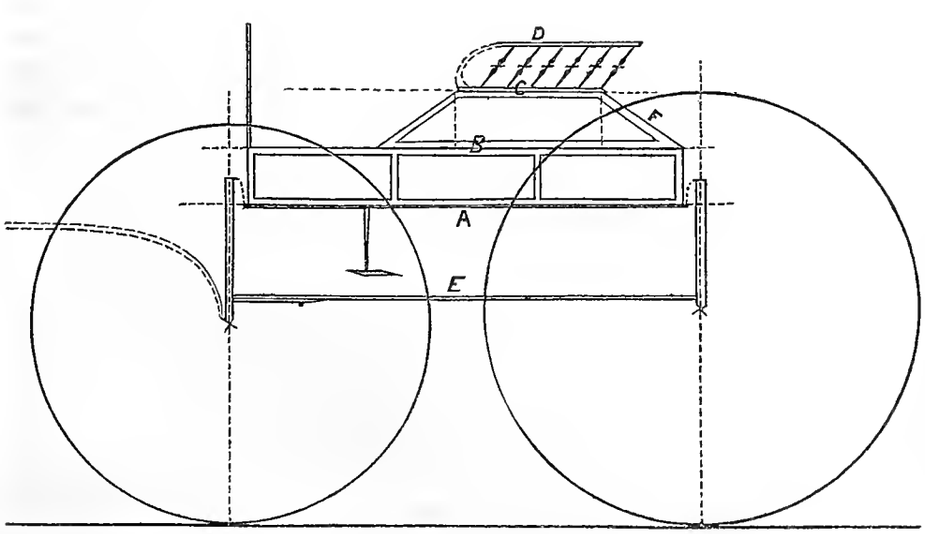
LESSON FIRST.

Before I proceed, I had better here state to the uninitiated, that scale drafting and the so-called French or square rule are two separate and distinct things, as some have an idea that, if they learn to draw to a scale, they are, at the same time, learning the square rule. I have known very fine draftsmen that understood nothing at all of the square rule, or even of its existence. Scale drafting is the art of condensing a large and practical view of a carriage, or anything in the mechanical line, into a small compass, at the same time retaining all its various proportions, for the convenience of booking, or transportation, &c.

The square rule is necessary for the body-maker to work by, and he cannot be a correct workman unless he possesses a thorough knowledge of it. By its means the side-swell is obtained correctly, and the thickness of the timber required for framing is ascertained, the short turns, &c., with accuracy, thus obviating the cut-and-try system that kills so much time.

I will commence on a plain, square buggy, as it is the simplest job we require to begin with, and will gradually bring you into the crooked drafting, and wind up with a coach.

In the commencement of each, place your paper in the centre of your board, and secure it with your drawing pins. If you want to make a finished draft, commence and complete your drawing first with the black lead pencil, using a straight-edge for your straight lines. When you have crooked lines to make, dot off the lines, as illustrated, until you get them to suit the eye, rubbing out with your rubber all the previous marks, and leave them in that condition until you are ready for inking, which we shall come at in the next lesson.

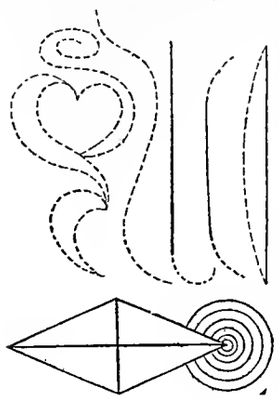


Now we will commence our pencil sketch. Place your T square upon the right hand side of the board and draw the bottom line, A, four feet from the bottom edge, then set your pencil compass 4 ft. 2 in., by your scale-rule, for the length of the body, and draw two perpendicular lines for the front and back ends, with your T square, from the bottom of the board; in drawing all your perpendicular lines, use your T square from the bottom of the board, and for the horizontal lines use the right-hand side of the board. Next get the depth of the body. We call this 6 inches, which we mark from line A, and draw line B; you next mark line C, six inches higher still for the full depth of the side and bottom line of seat; next you mark the height of your seat rail, D; then, from the dash-line, you mark with your compass 2 ft. to the front of the seat; next mark the seat 16 inches wide; from this point to the top of the back end is the bevel line, F, of the boot. Let the bevel be the same in front of the seat. Next, mark the top of the dash 8 inches above the seat-line; then dot off the point of the seat-rail, as represented, until it suits. Give the back of the seat an angle of 50 degrees. You will find the degrees marked in your scale-rule, if it is a correct one. Some draftsmen use a semicircle protractor, which answers the same purpose.

Now the body we left is in a state ready for moulding, and we will divide the body off into panels, and mould off the boot in a similar manner, with a centre ornament. To complete the penciling of the body, next mark off the seat sticks, six on a side, equally divided, top and bottom alike, as the seats look better when the sticks are all the same slant. Now we will put the running gear under our body. Put a mark for the top of the spring-bar, 3 inches above the bottom of the body and $2\frac{1}{2}$ inches from it, and draw a perpendicular line; then calculate $1\frac{1}{2}$ inch deep for spring-bars, 11 in. deep for springs, and 3 in. for axle-bed to the centre of the axle, making in all $15\frac{1}{2}$ inches from the body-loop, or top of the spring-bar, to the centre of the hind wheel. Now set your pencil-compass 2 feet 1 inch, and draw the tire line of a 4 feet 2 inch wheel; then you can draw the base or ground line. From the ground line we must calculate for the front wheel, which we will call 3 feet 10 inches. Set your compass 23 inches, which is half its height, and sweep your front wheel. Now you have 2 inches more room in front, from the spring-bar to the centre of axle, than you have behind, and you will just want it for your head-block and fifth wheel. Now draw two parallel lines, front and back, $1\frac{1}{4}$ inch apart, for the width of the steel springs. Next draw a horizontal line, E, $\frac{1}{2}$ inch below the springs, from the front to the hind wheel, for the reach. We will next complete this fig. 1st, by dotting off the steps, shafts, loops, &c. It will not be necessary to repeat a great many of these instructions in each lesson; so, to facilitate matters, retention is necessary. Before you commence inking, it will be necessary to practice a little with your pen, in which I will here instruct you.

See that your pen is sharp and that the points are even, but not so sharp as to cut; then get your pallet—the bot-

tom of a plate or saucer would answer the same purpose—then dip your Indian ink in clear water, and rub or grind it on your pallet, and use your camel-hair pencil to thin it to the consistence of common ink. Afterwards, fill your pencil with the fluid, and rub it into your pen. The coarseness of the line required is governed by the screw in your pen. Don't screw it so close as to hinder the ink from flowing. When your ink gets thick and clotty in the pen, dip it in water, and clean it out with a piece of chamois-leather, which you will keep by you for that purpose.



Having all these preliminary arrangements completed, try your pen, and draw lines like those you did when you first began to write—only in this case you have to use a straight-edge, or patterns—then dot off a variety of curves and sweeps with your lead pencil, as you see illustrated in the drawing, then match your patterns to them, and trace them with the pen. It is not expected that you will have patterns for every sweep complete; but use one pattern as far as it will go, then shift it and try another. A little practice will perfect you in this matter. Afterwards, replace your pen, for the pencil, in the compass, and practice at drawing circles with ink, using your small compass-pen for small circles. You will have occasion to draw circles from 1 inch diameter to 4 ft., and upwards.

For the New York Coach-maker's Magazine.

AN EXPERIENCED MAN ON THE SUBJECT OF WHEELS.

(*Continued from page* 60.)

Messrs. Editors,—Having given a few hints in regard to the seasoning of the timber and making up of wheels, I now propose to say a word about the iron-work.

Hooping the wheels is first in order. All light wheels should be open on the inside 1-16 of an inch, and a little more on the outside. Shave off, with a very "flat gouge," a little of the end of the spoke, to give the shoulder a solid bearing under the rim. Be sure and have the "tread" of the rim square with the face of the wheel. This is to prevent the wheel from dishing too much, or, as is sometimes the case, dishing back. This latter difficulty is always caused by the tread being too low on the front edge.

The tire should be cold when measured. One-sixteenth of an inch draft for a light wheel is enough, and even less on very light wheels. The smith must, of course, be governed by circumstances.

It matters but little what kind of axles are used, provided they are well fitted to the box, and of good iron. Case-hardened axles are to be prefered, and the arms should not be gathered. It is a great error to "gather" the axles. No carriage will run easy with the wheels inclined to crowd against the shoulder. Most blacksmiths will gather the wheels, notwithstanding it is contrary to all true principles and practical demonstrations. If the wheels stand perfectly true, the carriage *will run easy.* This is all the secret there is about it.

One principle in iron-work, as well as wood, should be to make the substance strong near the greatest strain, viz.: an axle in the centre, a T plate at the junction, a stay at the shoulder and at the first bolt-hole. Never shoulder down iron square with a "swedge," but use a "fuller," particularly in making T irons, no matter where they are used; always use a fuller in the corner. Iron-work can be made one-third lighter by a free use of the "fuller." There is no principle more neglected by smiths than this. Any one who has any experience in repairing old work can testify that shaft-irons and perch-plates are continually breaking at the weld. If the corners had been formed with a fuller, no breakage would have occurred. These may be considered small matters, but there is no escape from the fact that good stock, and often otherwise fine workmanship, is thrown away for the want of a few essential points generally overlooked by workmen. G. R. G.

[We differ from our correspondent in one particular; in reference to the "gouge" practice on "the end of the spokes to give the shoulder a solid bearing under the rim." We should want *the gouge* as "flat" as a chisel, and used very carefully. We have experimented, and found that in light work, where it is difficult to get much shoulder at the "tang," it is far better, after your wheels have become seasoned (after being put together), to carefully cut off the ends of such spokes as protrude outside the rim, with a drawing-knife, perfectly level. We have *gouged* out the ends of spokes, and obtained as our reward *the pleasure* of seeing our rims splitting at each side of the tenon in a short time, caused by the spokes sinking into them at the shoulder from the pressure of the tire and use, and the *fun* of giving our customer a new set of rims, in addition to which *we have had to stand and take a "blowing-up,"* which has had the tendency to *shatter* our nervous system considerably. Perhaps, however, our friend has more particular reference to heavy wheels in his recommendation, where the effects which he notices are not so injurious. We trust our correspondent will pardon us in thus "speaking our mind," as the great object of the Editors of his Magazine is to elicit the opinions of different members of the craft for the mutual benefit of all, and not to criticise our generous correspondents, whose opinions we respect although we may differ.—Ed.]

☞ The Fair of the American Institute at the Crystal Palace, was advertised to be opened on the 15th of September; but was afterwards postponed until the 21st, owing to the dilatoriness of exhibiters. Upon the whole, the prospects of a good Fair are said to be flattering. As the Coach-makers are never behind-hand in these matters, we anticipate a good representation on this occasion. We shall endeavor to be on hand and give our readers the benefit of anything that may be useful or interesting in the exhibition, in a future number.

COACH-CARVING.

A Third Letter.

New Haven, August 7th, 1858.

Messrs. Editors,—In my last communication I proposed to explain and illustrate the difference of treatment in carving, for plain and fancy styles, but I shall be compelled to postpone that part until my next, as I am anxious to more fully explain the simple lines and curves of geometrical ornament.

In my second letter I explained and illustrated the first line in ornament. I intend to continue and extend this principle a little, but still in simple and plain ornament.

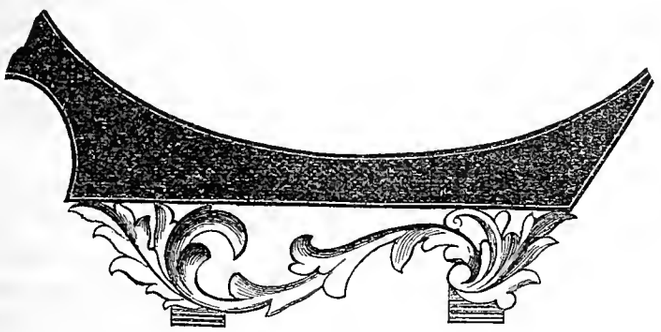


Fig. 6.

Figure 6 is a straight front-block, which can be made to any length or breadth. This design is intended for lightness, and no additional elaboration can improve it. It will be seen that in this design I have endeavored to extend and explain the principle laid down in Figs. 1, 2 and 3, and all combined in Fig. 3, page 58.

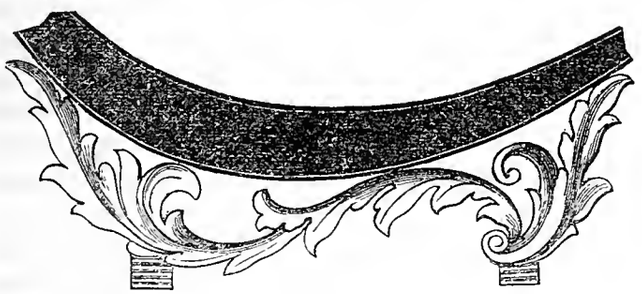


Fig. 7.

Figure 7 is the same design applied to a crane-neck coach.

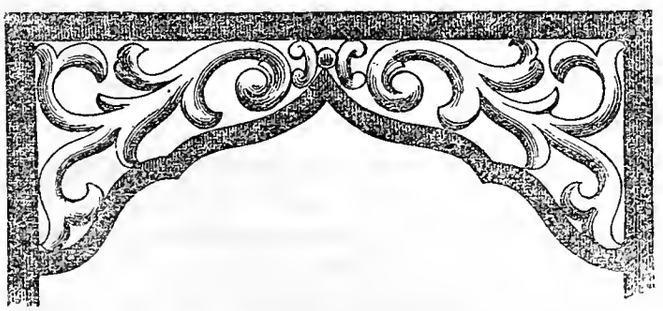


Fig. 8.

Figure 8 is a perforated door and front-quarter cap, which is carved on both sides of the door frames; the glass passing over the carving. This cap is much in vogue in New Haven and has a fine effect. This also shows the principle in Figs. 1, 2, 3, 4 and 5, combined in Fig. 3.

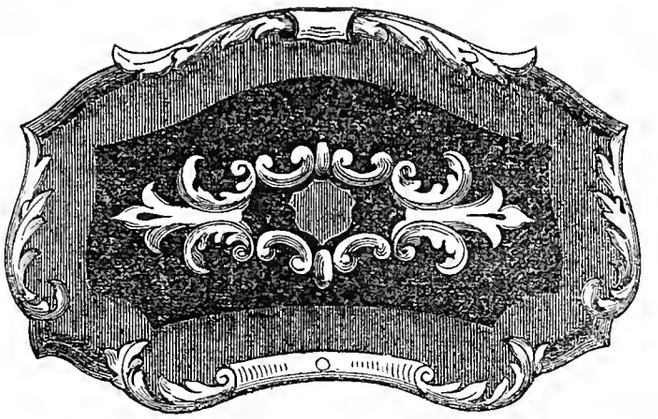


Fig. 9.

Figure 9, my Sultana opera-board, is also a good example. This board is suitable for either plain or fancy jobs. In this design you will notice a combination of foliated ornaments, scrolls, mouldings and panel, with a fret centre, which has a dashing effect when finished.

Geometrical ornament is a combination of straight lines, and curves, so combined as to form general outlines to panels, spandrells and other ornamental figures, and is equally appropriate, either to coach work or architectural diagrams.

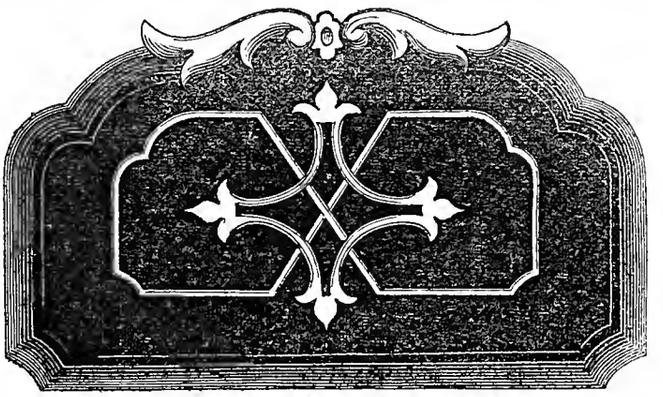


Fig. 10.

Figure 10 is a plain example of this principle. It is a plain opera-board, designed for plain jobs, with a raised bead-panel, carved top and grooved moulding on the edge.

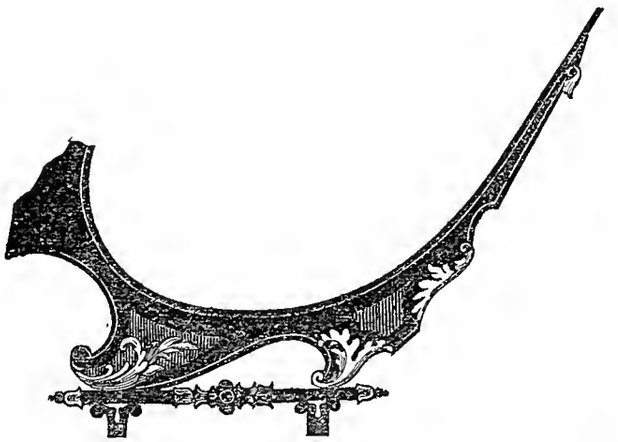


Fig. 11.

Figure 11 is a new design for a crane-neck coach, which I have named the Hiawatha. There is room for novelty as well as beauty in this design. It is a very fair example

of the manipulation of curves and straight lines. You will notice that I have introduced a carved stretcher in place of the front-block, which makes a strong contrast and would make a good finish. I have made this design, not only to illustrate the combination of straight lines with curves, but also to show that ornament should appear as though it was a part of the work, and you will notice that what little carving there is, it has a purpose in finishing other points that would be too plain without some embellishment. A new feature in this design is the counter-sunk panel, giving it a nicer play of light and shade. This design is in what is now termed *renaissance*, a French term for the mixture of the different styles. Variety is the spice of life and of ornament also, and the more diversity the artist can get, the more pleasing it will be to the eye. But care should be taken that novelty does not predominate over beauty. Novelty is always admirable in ornament, when introduced to contrast and relieve its sameness; but great care should be taken to keep up the connection, or style of the design. [See figures 1, 5 and 6.]

This will complete all I have to say about the first principles in coach-carving, and in my next I will enter more fully into the treatment of plain and fancy work.

Your humble servant,

James H. Campbell.

OUR BRIDGEPORT CORRESPONDENCE.

Bridgeport, Conn., Sep. 9th, 1858.

Messrs. Editors:—With deep regret I have to chronicle the melancholy accident which resulted in the death of one of the oldest members of the craft in the country—Mr. Goodwin, painter, father of Mr. Goodwin who works in Mr. Wood's carriage factory.

The railroad bridge here formerly had a path for foot passengers, but the company saw fit lately to pull it away, which left it a rather risky business to cross it, especially when a train was due, as there is only a plank about nine inches wide in the centre between tracks to walk on. The poor old man, thinking all safe, and taking the bridge as a short-cut home, was about in the centre, when the train puffed and whistled at the end of the bridge, and, without slacking speed, dashed ahead to the poor man's destruction. A young man might possibly have escaped by getting down among the timbers of the bridge, but an old man of seventy is not active enough for such a feat.

Trade keeps improving in this section. We are in hopes soon to see our worthy bosses come forward with that ten and fifteen per cent. which was taken off last year, and put on the present list of prices. I do assure you it would be very acceptable after the hard times, and we will call him a jolly good fellow that first sets the example. I would be inclined to bet a trifle that Bridgeport will be the first place you will hear from that first led the van.

I beg to make a short remark respecting No. 3 and 4 pencil, alluded to in scale-drafting. When you are going to ink your drawing, No. 3 pencil rubs out easier, being the softer, consequently is preferable; but where you want a pencil sketch, No. 4 leaves a harder and more durable mark.

Joseph Irving.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME AND ABROAD.

AMERICAN PATENTED INVENTIONS.

August 31.—Upsetting Carriage Tire.—E. J. Dodge, of Port Washington, Wis.: I claim arranging the anvil blocks or supports, to rock on a centre in the manner specified, in combination with the arranging of the jaws of the intermediate guide or support, to be adjusted separately or both together, up and down, substantially as and for the purposes set forth.

Machine for Bending Felloes.—John L. Mann, of Ravenna, Ohio: I claim the arrangement of the mounted forming block, and the system of tracks, D E F G, operating as described, when used in combination with the apparatus described, operating in the manner and for the purpose set forth.

Children's Carriage.—William P. McKinstry, of New York City: I claim the use of three draft bars or handles, A A 2 and B, attached to a child's carriage, and operated substantially as described and shown in the drawings.

Fare Boxes for Omnibuses, &c.—I. B. Slawson, of New Orleans, La.: I claim, first, the arrangement of an opening in the top of the fare box, through which outside passengers can deposit their fare, when such opening communicates with a chamber in which the fare first falls and is temporarily arrested, previous to being deposited in the receiving drawer beneath for the purposes set forth.

Second, I claim the arrangement of the passage block, D, and cover, E, over the opening in the top of the fare box, for the purposes described.

Attaching the Props of Carriage Bows.—D. B. Wright and L. Sawyer, of South Amesburg, Mass.: We do not claim the employment of a movable shoulder-piece which screws upon the prop, as in C. Thomas' patent. But we claim, as an improved article of manufacture, a carriage prop, in which the prop, C, is rendered independent of its plate, B, substantially as and for the purposes set forth.

Sept. 7. Convertible Carriage Shafts.—Amos K. Hoffmeier, of Lancaster, Pa.: I claim first, the combination of the pole hook with its eyes, Q, and points, R, as they fit into the front ends of the shafts which form the pole.

I also claim the arrangement and combination of the shafts, operating on joints, that when closed together form the pole, substantially as described.

Machine for Turning Hubs.—Alexander Rickart, of Schoharie, N. Y.: I claim rotating the mandrel, K, of the carriage, D, from the cutter shaft, B, through the medium of the worm-wheel and screw-gearing, f h i n, as described, it being understood that I do not claim broadly, and in the abstract, the well-known mechanical device of a worm-wheel and screw-gearing, but the parts above named, when arranged with the cutter shaft, B, and mandrel, K, of the carriage, D, so that the mandrel, K, will be connected with the shaft, B, and disconnected therefrom at the proper time, by the movement of the carriage, D, for the purpose described.

RECENT EUROPEAN PATENTED INVENTIONS.

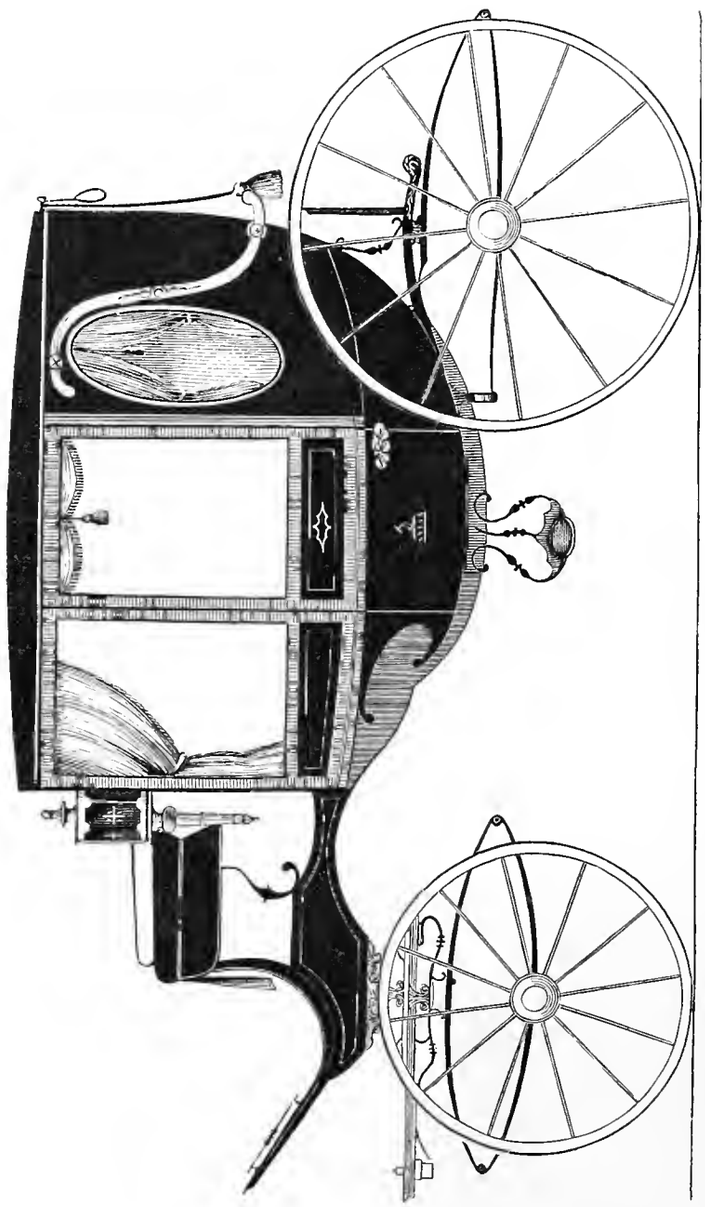
Marcus Davis, 5 Lyon's Inn—improvements in carriage wheels and in means of retarding their motions.

John Castle, Grantham, Lincolnshire—certain improvements in brakes used for retarding the motion of carriages on ordinary roads.

John Oxley, carriage-builder, Beverly, Yorkshire—certain improvements in the doors and sashes of carriages.

William Cowan, Edinburgh—improvements in machinery or apparatus for disengaging horses from carriages in case of accident.

John B. Thornber, Halifax, Yorkshire—improvements in carriages for children, called "perambulators," which improvements are also applicable to invalid and other carriages.

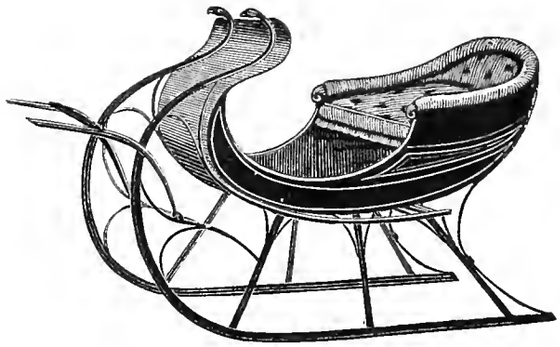


SCROLL-QUARTERED COACH.—½ IN. SCALE.

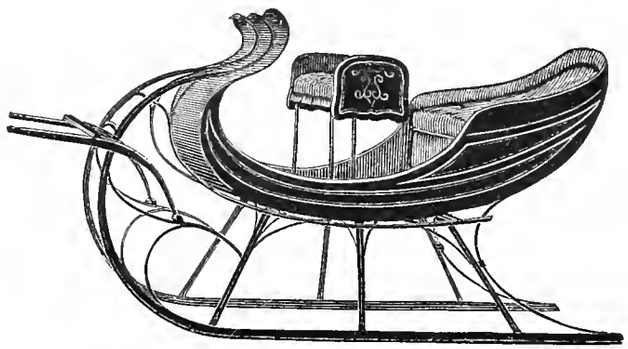
Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 110

CHILD'S CARRIAGE.—SCALE UNCERTAIN.

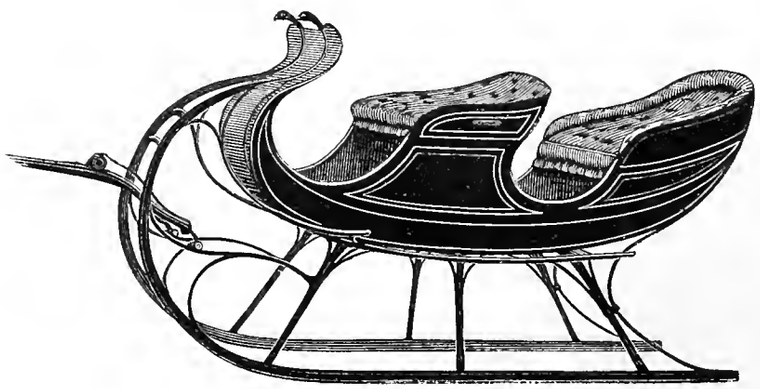
Engraved for the New York Coach-Maker's Magazine, from an Ambrotype furnished by Mr. RALPH SMITH, *New Haven, Conn.*—*Explained on page* 111.



ALBANY CUTTER.



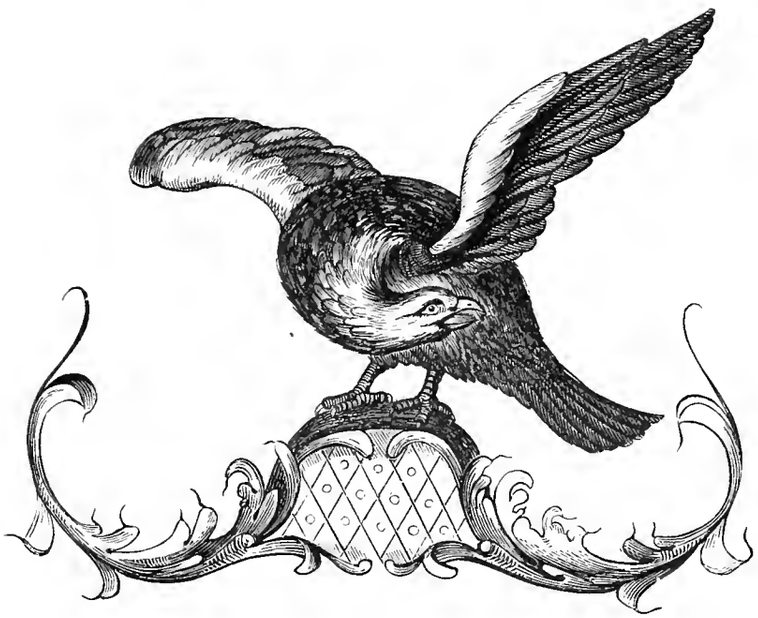
ALBANY TWO-SEATED SLEIGH.



ALBANY PONY SLEIGH.

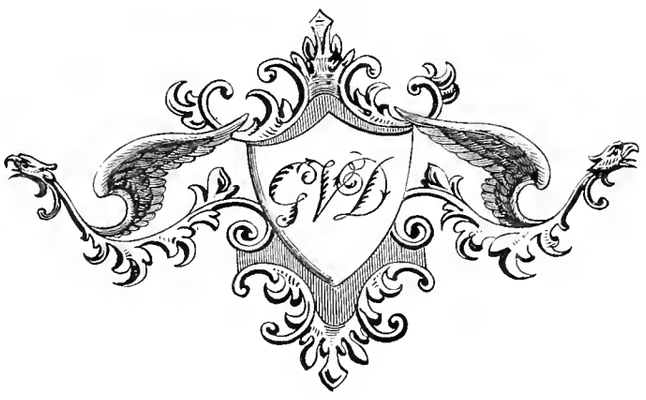
See remarks on page 111,

Nov., 1858.



No. 1.

No. 2.



No. 3.

ORIGINAL ORNAMENTAL DESIGNS.

Engraved expressly for the New York Coach-Maker's Magazine.
Explained on page 113.

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, NOVEMBER, 1858. No. 6.

For the New York Coach-maker's Magazine.

THE RED MUSTACHE—AN ADVENTURE.

BY JAMES SCOTT.

FOPPERY is not one of my failings. The most bitter of my enemies would hardly be such a numskull as to accuse me of being vain; no one who knew, or even saw me, would for a moment credit the validity of the charge. I despise a dandy, and regard with unmitigated contempt a person who puts on airs. I am, from principle, opposed to foreign fashions of every description, and yet, strange as it may appear, *I wore a mustache!* Ay! and was proud of it. Perhaps it was a weakness in me; but then it was such a glorious one; so luxuriant in growth—so *distingue* in proportions—so unique in color (a bright sorrel), and, in short, it was the *ne plus ultra* of mustaches. Never did nose surmount its equal, not even in the ranks of those hirsute heroes, Napoleon's Old Guard. Men envied me its possession; I have heard them admire it, and wish that its duplicate graced *their* upper lips. Little boys thought me a showman (I didn't like that much), and women—well, no matter what *they* said; 'tis enough that it attracted universal attention, and I liked it (liked is rather a moderate term, perhaps, but I will not change it). Much more could I say in praise of that paragon of hairy ornamentation; indeed, I might wax eloquent on the subject, but I forbear, though it costs me a pang to do so, as I must now come to the melancholy part of its history.

Like many other carriage-makers, the adamantine (hard is too common) times, by reducing my "boss" to a state of collapse, deprived me of a job, and the anti-plethoric condition of my pocket-book advised me of the necessity of emigrating to some locality where my services would be in demand, and where money was a *reality*. Procuring a ticket, I embarked my anatomy on one of the Western railroads, and about dusk in the evening arrived at the thriving city of C———, a place containing five or six thousand inhabitants, and situated about a mile from the depot. I determined to leave my trunk in the baggage-room until I ascertained if I could get a job, as I intended going farther, if unsuccessful. While attending to this, the omnibus which conveyed passengers to the city had departed, so I concluded to walk. When about to start, I made the very important discovery that I was out of tobacco, a luxury of which I am very fond, so I stepped into a restaurant attached to the depot to procure a supply. On approaching the counter I noticed a short, thick-set, bilious-looking man seated at a table, engaged in the interesting occupation of gorging a huge chunk of ginger-bread, the passage of which down his gullet was accelerated by liberal swallows of what I took to be ale, or lager-beer. When within a few feet of this individual, his eye wandered from the compound of flour and molasses on which he was engaged, and fell upon me. Had he been shocked by a galvanic battery the effect would have been similar; he started as if the writer hereof had been a stray grizzly bear, or Dan Rice's famed rhinoceros. I thought he was intoxicated, and so took no notice of his strange conduct at the time, but proceeded to get my "weed." I was detained a few minutes while making my purchase, in order to get a bill changed, and during that time I felt strangely conscious that the devourer of ginger-bread was watching me closely. On turning to leave, I found this to be the case; his masticatory labors were suspended, and his protruding eyes were fastened upon me with an intensity anything but agreeable. I wondered at this, and, on gaining the road, involuntary glanced through the window to get another look at him. He was gazing at the door as if some horrid spectre, clad in the mouldy habiliments of the grave, had just made its exit. What could it mean? I felt annoyed, puzzled, and *slightly* indignant; I even thought of going back and inquiring what he could mean by staring at me in that insolent manner. Had I done this, he would have saved me at least half the distance, for I had not proceeded more than five hundred yards, before, hearing footsteps, I turned, and, as the moon was shining brightly, beheld my tormentor coming after me at a rapid pace. The affair was now becoming interesting. Thoughts of garroters, robbers and highwaymen, suggested themselves in alarming succession, and, as self-preservation is the first law of nature, my first impulse was to run—but for what? Perhaps he had no intention of overtaking me—he might very naturally be going the same way—I would try him. I quickened my pace—*he* did ditto for a few seconds, then broke into a swinging run, making the gravel fly *missile*-aneously. Now, I am not a *very* passionate man—am not easily provoked, but, to use a rural phrase, 'twas a huckleberry or two more than I could swallow, being dogged in this manner, so I resolved to face my pursuer and demand an explanation. As I stopped, a

single glance showed me that, in case the fellow entertained sinister motives towards me, I had chosen a very unfavorable locality, as there was no house within hearing distance. I again, in spite of my rising anger, thought of running, but it was too late, he was close at hand. Turning my back to the moonlight—a decided advantage in case of a personal encounter—I awaited him.

"Well, sir!" said I, when he had halted, puffing and blowing, within a few feet of me, "what do you mean by following me in this manner? Do you want to rob me?"

"Rob!" exclaimed he, "reckon not, Mister Hunter, only of your liberty. You are my prisoner." Attempting to collar me as he spoke.

"Hands off!" I cried, starting back a pace or two. "My name is not Hunter, and you know it well. You can't come any such game as that over me. If you want my money you will have to work for it, so look out for squalls!"

I had fully made up my mind that the fellow wanted to rob me, and that the arresting part of the business was merely a *ruse* to throw me off my guard. His personal appearance belied the assumption that he was an officer; if he was one, why did he not arrest me at the depot; the case was a clear one, and I determined to act accordingly. 'Tis true, that I was unarmed, but, as he appeared to be so likewise, I did not fear for the result. Not that I am constitutionally brave, on the contrary, it was, perhaps, a feeling of a cowardly nature which made me so confident. I felt that I had the advantage of him, for I was a first-rate amateur pugilist—an accomplishment which I acquired while a member of a metropolitan gymnasium—and the consciousness of this rendered me as courageous as if I had been a perambulating armory, furnished with Colt's repeaters and bowie knives.

"Now, it's no use your putting on airs in that kind of style," resumed the fellow in a tone of dogged determination, as he again advanced toward me. "I know you to be Jack Hunter, the horse-thief, and"—

He didn't finish the sentence, for I inserted a full stop in the shape of a rousing blow, delivered with strong emphasis, at the starting point of his short, stumpy proboscis. In an instant he disappeared, and a cloud of dust arose from the dry road, in the midst of which, a pair of legs, terminating in stoga-boots, were describing strange gyrations. In a few moments the aforesaid cloud parted, and a hatless figure, looking as if a sack of flour had been emptied over him, emerged, and made at me furiously. Now was the time for the exercise of my science, so I squared myself *à la* Tom Hyer. There was another forcible concussion, followed by an exhibition of ground and lofty tumbling by the ginger-bread man. This performance was repeated several times, my opponent returning to the charge and receiving his dose with determined spirit, and a display of wonderful fluency in the way of profane interjections and uncomplimentary appellations. My blood was now fairly up, and I was beginning to rather like the thing, when my dusty friend suddenly changed his tactics, in rather an unpromising manner too, for, on gathering himself up from the road for the sixth or seventh time, he seized a large stone and hurled it at me with vindictive fury. I sprang aside with more agility than I ever displayed either before or since, or ever expect to again. I was just in time, for it whizzed by within a foot of my head. I have said that I was just in time to escape the dangerous missile thrown at me; that was very true, but I was also just in time to stumble over a rock, the effect of which was to spread me out on the ground in an attitude of questionable gracefulness. It would be superfluous to say that I set about regaining the perpendicular with all possible dispatch; my enemy, however, was too quick for me. Ere I could gain my feet, he administered a terrible kick with his heavy boot, which, taking effect on my temple, knocked me senseless. How long I remained in this condition I can't tell. On returning to consciousness, I found that my hands and feet were securely tied, so that it was impossible for me to move a limb. I entertained no doubt *now* as to the character of my assailant. He had most likely robbed me, and secured me thus, to prevent my going to town and giving the alarm when I recovered. Having arrived at this conclusion, I was proceeding to exert my little remaining strength in an effort to release my hands, when the sounds of feet and distant voices attracted my attention. In a short time I saw a large crowd approaching; they carried a couple of lanterns, and were evidently looking for something, or somebody, as they examined the fence corners while advancing. I uttered a cry, in order to attract their attention, and I succeeded. "There he is!" exclaimed one, and I was soon surrounded. The glare of the lights for a time blinded me, and, on becoming able to see clearly, what was my astonishment to behold my late foe among the foremost of the crowd. His face was awfully battered, yet I easily recognized him. He had not taken my money, that was evident, else he would not have voluntarily returned. What could it mean? I was soon enlightened.

"You are positive this is him!" said a man who carried a heavy cane and a lantern.

"Yes!" returned the fellow with the damaged countenance, confidently. "I would know him by that red murstache of hisn, if I seed him on the top of the Rocky Mountains!"

"I reckon you are right, the advertisement describes him as wearing a heavy red murstache; so, we'll take him along, and lock him up until he can be examined. If he turns out to be Jack Hunter, you will come in for the fifty dollars reward, which will pay you pretty well for the thrashing he has given you. Come here, some of you, and help to raise him. Hold on till I untie his feet. You were determined that he shouldn't get off, I see!"

"Yes, indeed! I had too hard work to catch him to forget that."

I had said nothing, I felt that explanation or expostulation would, then, be of no avail; so I suffered myself to be conducted to jail without a murmur, but with feelings of the bitterest kind. From the officer I learned that I would be examined on the following morning, and, at my request, he promised to send me a lawyer as soon as possible after breakfast. My only object in wanting legal advice was to get out of the scrape as *speedily* as practicable. I had no fears for the final result, but I knew that, unaided, it might be some time ere I could prove that I was not the veritable Jack Hunter, horse-thief and proprietor of "a heavy red mustache." Mustache! ay, there was the rub, and, if my memory serves me not falsely, I sincerely wished mine made up into blacking-brushes or door-mats—I mean *a* door-mat, I don't think it would make *more* than one of respectable dimensions.

Well, in the morning the man of law and fat fees visited me, and we soon came to an understanding. He thought that he could procure witnesses who were familiar with the person of the real criminal, and assured me he would have the examination brought on as soon as possible.

In about an hour I was conducted through a gaping crowd, to the magistrate's office, which was literally jammed with eager spectators, who eyed me as if I was a wild animal, or the concentrated essence of villainy moulded into human form. On being seated, my legal adviser approached me with a newspaper in his hand, and, pointing to an advertisement, desired me, with a smile, to read it. Advertisements are, generally speaking, dry reading, but this one interested me. It was to the effect that a reward of fifty dollars would be paid for the apprehension of Jack Hunter, charged with horse-stealing, &c. Then followed a minute description of his person. As I read that part of it, I involuntarily burst into a loud laugh, in which the attorney joined me; a breach of decorum which drew from the red-headed and ditto-nosed dignitary, seated behind the railing, a stern command of "silence in the court." The fact was, the description—the *mustache* alone excepted—was strikingly at variance with my physical proportions. The person described was, at least, four inches taller, fifteen years older, and looked ninety-nine times meaner than me (I own a looking glass); besides having a long scar running across his forehead, and was known to wear a wig. The lawyer also whispered to me that he had found two men in town who, a year previously, had assisted in arresting the *bona fide* culprit, and who were perfectly familiar with his person. "They will be here in half an hour," he continued, "so, in the interval, let us have some fun with old pomposity yonder"—meaning the Justice—"and your friend of last night. I will bring on the case and examine him, at which you can assist just to annoy the honorable Court (!)"

The crowd was called to order—which meant to take off their hats and keep their mouths shut—and Job Simpson, half the surface of whose face was covered with court-plaster, was called to testify as to my identity, and the particulars of my arrest, in which he bore so conspicuous a part.

The scene that followed was decidedly rich. My counsel bullied the justice, and, together, we plied the witness with the most ridiculous questions, by which process we gained the very important information that he, the witness, was not intoxicated on the night of my arrest. That I struck him with what he supposed was a slung-shot, weighing at least ten pounds. That he never was confined in the lunatic asylum. Never was tarred and feathered for stealing chickens. His paternal ancestors were not Africans—(delivered very indignantly)—they came from Holland, and he could prove it. Never said that the justice was drunk half of the time, and didn't know any more about law than a big dog. He thought the justice was a gentleman, and knew his business. Didn't vote for General Jackson in 1854, and, finally, could prove that he never swindled a nigger out of a hog; and would swear that I, the prisoner at the bar, was Jack Hunter, for he had seen me once before up in Squedunk County.

At this juncture the two men, mentioned by my lawyer, arrived, and promptly testified that I was *not* Jack Hunter, although I had "har" on my upper lip just like him. The difference between my appearance and the description in the paper was then shown, and I was acquitted. I talked of getting out a warrant for the arrest of Job Simpson, on charges of assault, perjury, &c., but, on looking around, I discovered that he had "sloped." Paid the lawyer a V, and made a grand rush for—the depot, you probably think—no, a barber's shop. In ten minutes my magnificent monstache lay upon a piece of paper, a mass of lather and red hair, and from that day forth my upper lip is innocent of bristles.

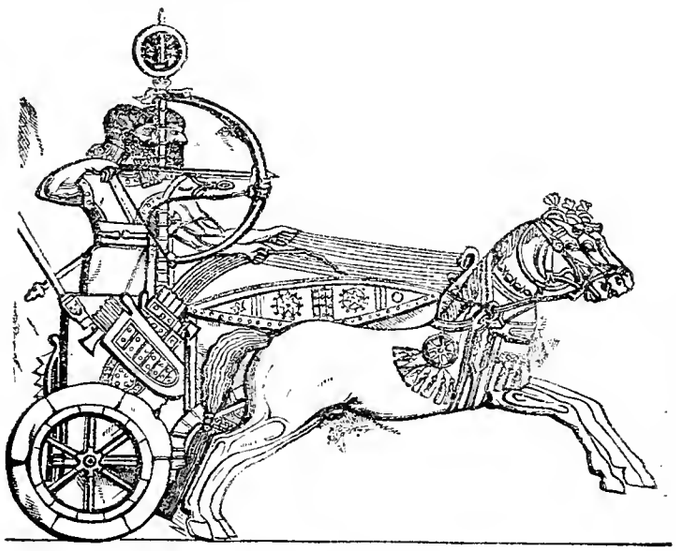
COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER VI.

Supposed manner in which chariots were introduced into Assyria—Sesostris' victories, and his brother's unfaithfulness—The Assyrian chariot minutely described, and compared with the Egyptian—Difference between those of Korsabad and Nimroud, the latter representing the Trojan chariot—The fragments of a wheel found on the site of Ancient Nineveh, of metal, in part—Assyrian chariot-makers less skillful than the Egyptian.

"*Scilicet ingenuas didicisse fideliter artes,*
Emollit mores, nec sinit esse feros."

The next country in which the chariot flourished was the kingdom of Assyria, founded by Nimrod, that mighty hunter, according to Usher, sixteen years earlier than that of Egypt. Probably, by one of those singular circumstances which often serve to introduce fashion and usage from one country to another, our chariot was transported into Assyria at a very early age.



ASSYRIAN WAR CHARIOT.

From a fragment of Manetho's History, preserved by *Joseph. Contr., App. lib.* 1, *c.* 14, 15 [A. M. 2513], we learn that "Sesostris, having appointed Armais,* his brother, viceroy over Egypt, went on an expedition against Cyprus and Phœnicia, and waged war with the Assyrians and Medes, all of whom he subdued, either by force of arms, or voluntary submission by the mere terror of his power. Encouraged by these successes, he advanced still more confidently, and subdued the countries of the East." At this time (A. C. 1491), the Assyrian Empire had been founded 309 years. This subjection, doubtless, introduced the chariot iuto the subjected empire. Contrasting the Egyptian and Assyrian chariots of a later period, as depicted in a former and the present article, we find that there was

* During the absence of Sesostris, Armais abused his confidence, by violating his queen and numerous concubines, and, at the persuasion of his friends, assumed the crown, and openly defied his brother. Informed of this by the head priest, Sesostris returned to Pelusium and recovered his kingdom. From Sesostris, Egypt took its name—his proper name being Egyptus. He reigned 38 years.

a marked distinction between them, which will serve, strikingly, to illustrate the ingenuity, and its different applications, as possessed by two of the most distinguished nations of the world's early history. In some particulars, their chariots closely resembled each other, particularly in the hanging up, which, should our readers compare with the drawing of an Egyptian vehicle on page 86 of this volume, he can see for himself has been improved upon a little, by placing the body further back on the axle-tree. The lightness between the two, when placed in contrast, is very striking. Egypt, a level and fine country for travel, would allow of very light construction. Assyria, on the contrary, rough and mountainous, required something more substantial. That art, in its incipient state, produces a heavy article, which usage suggests may be made lighter, and at the same time prove efficient, has found examples in our own country. Compare the present carriages with those of forty years ago! After describing the Assyrian chariot, we shall proceed by contrasting it with the Egyptian.

Proceeding from the front of the Assyrian chariot as above illustrated, over or between the horses is a richly-embroidered appendage, which seems to be an apparatus like that used in India for preventing the horses from coming together. The bossed shield of the king is placed at the back of the chariot, serving for further security; in front is the brass or iron bar fixed to the pole, as in the chariots of Egypt, and the pole in one example terminates in the head of a swan—in another, in a ball. The spear is inserted behind the chariot, in a place appointed for it, decorated with a human head. The harness and trappings of the Assyrian and Egyptian horses are almost precisely alike. Pendant at the sides of the horse is a circular ornament, terminating in tassels, analagous to that, divided into thongs, at the side of the Egyptian horse, which, we presume, may be intended to accelerate the pace of the animal, as in the case of the spiked balls fastened to the trappings of the race-horses on the Corso, in modern Rome. In both examples, several bands pass over the chest, and, lapping over the shoulders of the horse, join the ligaments attached to the yoke, or pole. A remarkable band and thong, through the upper end of which passes a single rein, is the same in both harnesses. The tails of the Assyrian horses are fancifully compressed in the centre, while the Egyptian horses have a band round the upper part or root of the tail. Around the necks of the Assyrian horses is a string of alternately large and small beads, which appear to have cuneiform characters cut upon them—possibly, a series of amulets, according to the custom of many oriental nations of the present day. The shield-bearer is seen protecting his sovereign with a bossed shield extended. In our example there are two horses, but in some instances three were employed.

If we examine the slabs on which chariots are represented, lately exhumed by Layard and others, both at Korsabad and Nimroud, we discover a marked difference in them. Those of the older city are represented in our present engraving, and which probably had continued in use throughout all Asia for a long period. It is surmised that the walls of Nimroud supply examples of the Trojan chariot, the intermediate stage between those portrayed at Korsabad and those introduced by Cyrus.

There is a remarkable feature about the wheels of the Assyrian chariot, differing very materially from those of Egypt. Should the reader look at the bas-reliefs, as in our illustration, he will notice that the spokes, as compared with the other parts of the wheel, are very slight—a circumstance that induces us to believe that they were formed of metal. At this point we are assisted in our history by the fragment of a small circle, undoubtedly forming the portion of a car wheel, recently found on the ancient site of Nineveh, on the concave side of which still remain the roots of the spokes. The bas-reliefs go to show that the felloes were formed of two superposed circles, the external circle being united by broad flaps to the internal one. It is very allowable to suppose that the Assyrians, finding great difficulty in uniting with precision the different parts of a wheel, thought of casting in one piece the interior portion—that is, the hub, the spokes, and the first circle, or felloe—and then completing it by another circle of wood, thicker and broader than the first, in order to increase the diameter of the wheel, and prevent its cutting into the ground. Contrasted with the Egyptian wheel, the Assyrian does not impress a modern coach-builder's mind with any exalted ideas in favor of Assyrian art. The whole vehicle presents a rude and clumsy appearance, far behind the Egyptian, as illustrated in this serial history, and the whole subject presents matter for study, deeply interesting to thinking minds. This subject will be further illustrated in our next chapter, with a chariot of a later date. S.

THE HORSE-TAMER'S SECRET UNFOLDED.

(*Continued from page* 84.)

SUBSEQUENT EDUCATIONAL LESSONS IN HORSE-TAMING: HOW TO SUBDUE A KICKING HORSE.

A KICKING horse is the worst kind of a horse to undertake to subdue, and more dreaded by man than any other; indeed, it would not be too much to say that they are more dreaded than all the other bad and vicious horses put together. You often hear the expression, even from horse-jockeys themselves, "I don't care what he does, so he doesn't kick." Now, a kicking horse can be broken from kicking in harness, and effectually broken, too, though it will require some time to manage him safely; but perseverance and patience by this rule will do it effectually. When you go to harness a horse that you know nothing about, if you want to find out whether he is a kicking horse or not, you can ascertain that fact by stroking him in the flank where the hair lies upward, which you can discover easily on any horse; just stroke him down with the ends of your fingers, and if he does not switch his tail and shake his head, and lay back his ears, or some of these, you need not fear his kicking; if he does any, or all of these, set him down for a kicking horse, and watch him closely.

When you harness a kicking horse, have a strap, about three feet long, with a buckle on one end; have several holes punched in the strap; wrap it once aronnd his leg, just above the hoof; lift up his foot, touching his body; put the strap around the arm of his leg, and buckle it; then you can go behind him, and pull back on the traces; you must not fear his kicking while his foot is up, for it is impossible for him to do it. Practice him in this way awhile, and he will soon learn to walk on three legs. You should not hitch him up until you have practiced him, with his leg up, two or three times, pulling on the traces and walking him along. After you have practiced him a few times in this way, take up his foot as directed; hitch him to something, and cause him to pull it a short distance;

and then take him out; caress him every time you work with him. You will find it more convenient to fasten up his left foot, because that is the side you are on. After you have had him hitched up once or twice, you should get a long strap; put it around his foot, as before directed (above the hoof and below the pastern-joint); put it through a ring in your harness; take hold of it in your hand; hitch him up gently, and, if he makes a motion to kick, you can pull up his foot and prevent it. You should use this strap until you have him broken from kicking, which will not take very long. You should hitch a kicking horse by himself; you can manage him better in this way than to hitch him by the side of another horse.

HOW TO BREAK A HORSE FROM SCARING.

It is an established rule in philosophy, that there is not an effect without a cause, and, if so, there must be some cause for the scaring of a horse. The horse scares either from imagination or from pain. Now, it is a law of his nature, that if you will convince him that any object will not hurt him, there is no danger of his scaring at it, no matter how frightful it may be in appearance. To exemplify this, take a horse that is very easily scared at an umbrella; take that horse into a tight stable where you can have his attention; take him by the bridle, and hold the umbrella in your hand; when he first looks at it he will be afraid of it, and, if he could, he would soon be out of its reach; but hold it in your hand; let him look at it, and feel it with his nose, a few minutes, and then you can shut it as you please, occasionally letting him feel it with his nose, and soon he will care nothing about it.

In the same manner you can break any horse from scaring at things that may look frightful to him, logs, stumps by the roadside, or anything that you may wish to carry on him. If you wish to make a trial of this theory, just take a horse into the stable, and let him examine the frightful object a few minutes, after his mode of examining things, and you will be perfectly satisfied. We have tried horses that would not suffer you to take an umbrella on them shut, and in fifteen minutes could open and shut it at pleasure, and they will pay no attention to it. There is something peculiar in the horse (though it is because he has not the faculty of reasoning). You can take an object that he is afraid of; take it only on one side; let him examine it on that side only; do not let the other eye see it; he will be broken on one side, and, as soon as the other eye beholds it, will be afraid until he looks at it and touches it with his nose; then he will be broken on both sides.

Donati's Comet—October, 1858.

THE COMET.

Donati's comet, which at this date so beautifully adorns the western sky from dusk until half-past eight in the evening, and again is seen in the northeast at about four in the morning, was nearest the earth about the 9th of October, at which time it was very large and brilliant, probably more so than any that may be seen again by the present generation. Its distance, when nearest the earth, was about fifty-two millions of miles. The nucleus was near the constellation Arcturus, and nearest the earth's orbit on the 20th of October. Dr. Bond, of Harvard College Observatory, says that the cause of this comet's appearance again in the morning is owing to the considerable northern declination of the comet, with a right ascension differing but little from that of the sun.

The following very interesting observations on the progress of the comet, at an early date after its appearance, are from the pen of Professor Mitchell, of the Cincinnati Observatory, and will, no doubt, be read with interest at this time:

"On the evening of the 25th of September, the appearance of the comet, in the great refractor of the Cincinnati Observatory, was especially interesting. The central portion, or nucleus, was examined with powers varying from one hundred to five hundred, without presenting any

evidence of a well-defined planetary disc. It was a brilliant glow of light, darting and flashing forward in the direction of the motion toward the sun, and leaving the region behind in comparative obscurity. But the most wonderful physical feature presented, was a portion of a *nearly circular nebulous ring*, with its vertex directed toward the sun, the bright nucleus being in the centre, while the imperfect ring swept more than half round the luminous centre. This nebulous ring resembled those which sometimes escape from a steam-pipe, but did not exhibit the appearance which ought to be presented by a hollow hemispherical envelope of nebulous matter.

"There was an evident concentration of light in the central portions of the ring, while, in the case of a hollow envelope, the brightest portion should be at the outer edge. By micrometrical measurement, the distance from the central point to the circumference of the ring was found to be about nine thousand miles. This would give a diameter of eighteen thousand miles, in case the ring was entire. Similar measurements, made on the evening of the 26th of September, indicated a decided increase in the radius of the ring, which was now not less than twelve thousand miles in length. On the same evening, I noticed the fact that the luminous envelope did not blend itself into the head portion of the tail, but appeared somewhat to penetrate into this nebulous mass, especially on the upper part, presenting the appearance of about 200 degrees of a spiral. The tail, on the 25th, was decidedly brighter and better defined on the upper than on the lower portion, while on the evening of the 26th there was a much nearer approach to equality in brightness, especially near the head of the comet. Through the telescope, and near the head, the tail presented the appearance of a hollow nebulous envelope, under the form of a paraboloid of revolution, the edges being brightest and well defined, while there was a manifest fading away of light towards the central region. Through the vast depth of nebulous matter composing this wonderful appendage, the faintest telescopic stars shone with undiminished brightness.

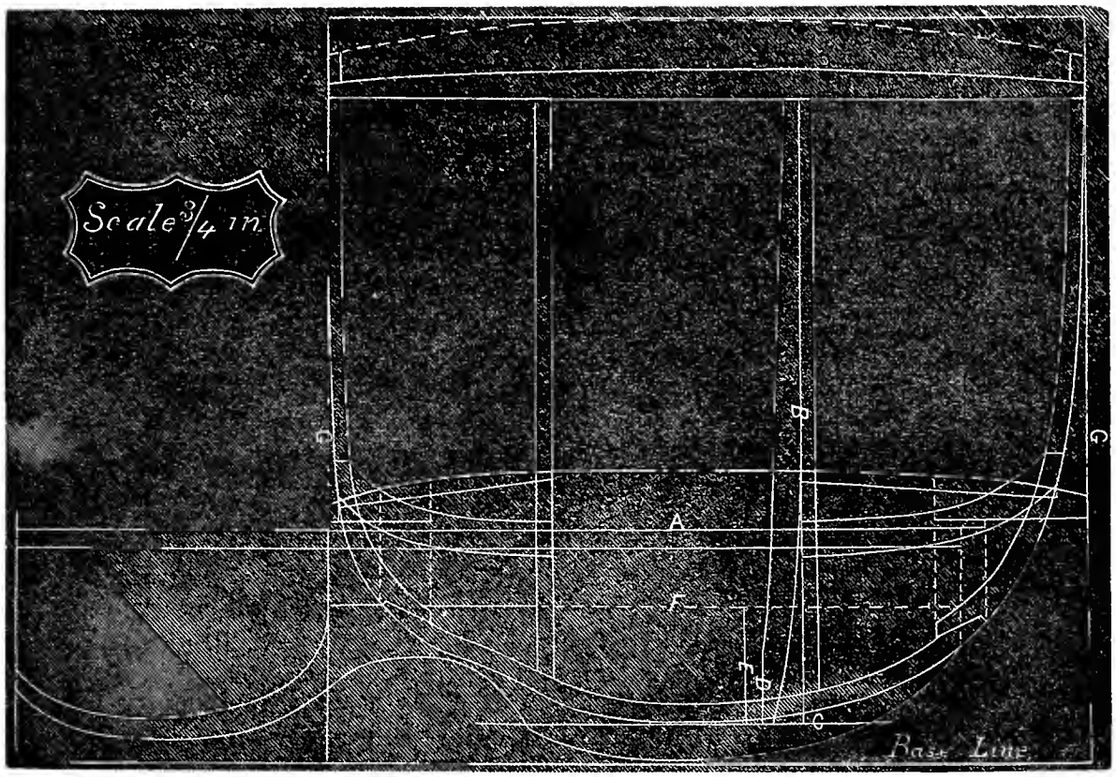
"The only comet which has presented an appearance resembling the one now visible is the one known as Halley's Comet, as seen by Sir William Herschel and others, in its return in 1836. There is a marked difference between the two: that while the envelope of Halley's Comet is described as a hemispherical hollow envelope, this shows more the shape of a nebulous ring; there is a faint, misty light, of irregular outline, but not to be mistaken by even a casual observer. Mr. J. R. Hind, the English astronomer, who has earned the appellation of the 'Planet-catcher,' is good authority on the comet. He expresses the opinion that its increase in brightness will go on, in conformity with theory, so that about the epact of maximum brilliancy in October it will be visible with telescopes in full sunshine. The nucleus is of the appearance of a star of the second magnitude, and the tail, which points nearly due North, although rather faint, is about five degrees in length. The comet is about 120 millions of miles from the earth, or a little farther from us than the sun, and the diameter of the nucleus is estimated to be rather more than 3,000 miles, or nearly one and a half times larger than the moon. The length of the tail, judging from its appearance, is estimated at fifteen millions of miles. The path of the comet is that of a parabola, and it is conjectured that it will not appear again for some hundreds of years."

We have had our engraving made expressly for this Magazine, and which gives a very fair representation of it as it appeared on the evening the drawing was made.

THE RUSSIAN DROSHKY.

THE following interesting description of the droshky, or St. Petersburg cab, we find in a late number of the *New York Times*, over the *sobriquet* of a traveler who calls himself "Marc Random." With some allowance for the writer's fanciful description, it presents a pretty fair picture of the Russian national vehicle. He asks:

"Do many of your readers know what a *droshky* is? The droshky is the popular vehicle of St. Petersburg, in the 'rolling' season—by which I mean the months when there is no sleighing. The droshky stands in the same relation to the everyday life and locomotion of St. Petersburg as the cab or the 'Hansom' does to London, and the *fiacre* to Paris. Yet it differs in every essential respect (save that it *has* wheels—such as they are) from all these. It differs, too, entirely, from the Russian omnibus, which is a clumsy, dingy-looking vehicle, much higher behind than before and appearing as if strongly inclined to pitch over the horses' heads. This latter affair resembles nothing I know of so much as that peculiar wagon, often to be seen waiting at the back entrances of criminal court-rooms in our large cities, and known by the *sobriquet* of 'Black Maria.' The droshky, on the contrary, is a very small carriage, about the size, perhaps, of a moderate basket-cradle. Its wheels are of a circumference adapted to a barrow. The droshky is destitute of springs (as far as I can discover), and is, altogether, as ingenious an instrument of torture as any exhibited in the Tower of London or elsewhere. It is provided with a little seven-by-nine sort of perch, just behind the driver, and the only prospect the passenger has ahead is a needlessly close view of a long coat of coarse cloth, with a brass plate and number suspended from the collar, the whole surmounted by a low-crowned hat, in shape resembling a peck measure. Many droshkies are not constructed to afford room for disposing of the unlucky passenger's legs in the usual manner, and, unless he happen to be provided with Palmer's patent, and can unscrew his nether extremities and leave them at home, he must perforce straddle the seat, at the imminent risk of breaking his ankles. This is the Russian droshky, hundreds of which are constantly jolting over the stony streets of St. Petersburg, at twenty-five copecks, or twenty cents, the ride. It is a contrivance which may be earnestly recommended to the attention of dyspeptics, as certain to effect a radical cure in a very short space of time. I am glad to say, however, looking to the comfort of people who are *not* dyspeptic, that a project has been broached to establish in this city a system of public cabs similar to those of London and Paris. It is certainly a much-needed reform. These droshkies, at the best, can only be useful in fine weather; which is the exception here during by far the greater part of the year. When it rains, those who desire to ride are obliged to employ large two-horse covered carriages, the drivers of which are even viler extortioners than New York hackmen. It is true there is a tariff of charges, regulated by law (as, indeed, with you), but it is adroitly evaded, and only exists upon paper. If you take possession of a carriage and give the driver his orders, he invariably tells you that he is already engaged and cannot consent to run the risk of being discharged, for a less consideration than three to five roubles; and you must submit to the imposition or go on foot."



SKELETON ROCKAWAY AND KANT-BOARD.

For the New York Coach-Maker's Magazine.

GEOMETRY OF CARRIAGE ARCHITECTURE.

BY A PRACTICAL COACH-MAKER.

PART FIRST—BODY-MAKING.

It is our intention to lay the square rule before the readers of this Magazine, in a manner so as to be easily understood, especially by apprentices, and young men who never had the advantages of working in a shop where accuracy and correctness were the order of the day, but who have spent the best of their time on the *guess at it and allow a little* system. There are different methods adopted in laying out this rule, but it tends to the same thing in the end. We purpose adopting the simplest manner of applying it, and commencing on the simplest job requiring its use.

The above plate represents a skeleton rockaway, with the kant-board attached. When we come to a coach job, we purpose laying it off in sections, giving each segment requiring the application of the rule our principal study, till we feel we have given sufficient instructions to keep the recipient from relapsing into his former habits, and convincing him of the necessity of its application. By once applying yourself to the use of the square rule, you can always learn and improve, and find out many things which you cannot expect to learn from a publication, further than to get the method of applying it. We will at once proceed with our rockaway to lay it down on the draft-board. As this is the square rule we are on, it is expected that all the patterns are made for the side elevation. As there are several calls for this production, we will have to let some one else tackle into a chapter of instructions on pattern-making, or defer it till some future time. It is supposed you have made your draft from a correct scale-drawing. Now we will lay out our kant-board.

For convenience we will place the kant-board on the draft; it would do in this case on a separate board, or under the draft—but, for a contracted body, it is very essential to have the kant exactly half the width of the body from the base line; then, by applying your rule, you can get the exact length of any cross-bar required.

In order to find out the swell we give the side, we have first to calculate on how much turn-under we are to give the standing pillars. We want it to turn under $2\frac{1}{2}$ in.; this $2\frac{1}{2}$ in. you mark off at the extreme depth, C, of the bottom side, from the line, B, of the hinge-pillar; add $\frac{3}{4}$ in. more to the $2\frac{1}{2}$ in., for the tenon point of pillar; from this point draw the square line, D, which is the inside of the pillar. Now you have the full depth of the pillar, which is $3\frac{1}{4}$ in.; you can now draw an easy curve from where you marked it $2\frac{1}{2}$ in. at the bottom, to about 5 in. above the bottom of the arm-piece. This is the turn-under of the body from the back of the tenon. Now add $1\frac{1}{4}$ in., and draw line E up to where it intersects the seat line, F; this line, E, is the face of the bottom side of the transverse section. Having obtained the turn-under of pillar, and the full depth of side frame, we will now mark it off on the kant-board.

From the base line on the draft-board draw the chalk-line A, the full length, and exactly half the width of the body, between the bottom sides; this we will call three feet, then, with your square, draw lines from the extreme length of top, or kant-rail, till it reaches the horizontal line, A; also, draw lines from where the arm-piece terminates on the front and back pillars. From line A, which is the face of bottom side, and on line B, mark off the previous calculation of pillar. The $1\frac{1}{4}$ inch between lines D and E is the distance to frame the standing pillars from face of bottom side, which you mark on the kant-board. From this, mark off the full depth of pillar between lines D and

B. Now you have the depth of side swell at the standing pillars. Now we will place the back and front pillars in their proper position. Before we can decide on the sweep of top-rail in this instance, we will frame the pillars ¾ inch from the face of bottom side, which we mark on the board from the perpendicular line at the foot of the pillar to the extreme limits of body lines, G G. At this point, mark 1¼ for the thickness of pillars at top. Now we can shape the swell of the body. In doing so, give more sweep on the quarters than in the door-way. One and a quarter inch is sufficient for the swell of the door.

The Home Circle.

For the New York Coach-maker's Magazine.

ABGARUS.

From the vale in far Edessa, where reposed his quiet home,
In the flush of early manhood, came Abgarus unto Rome—
He would see the world's proud mistress, see her in her proudest day—
Came he while with glorious sceptre yet Augustus held his sway.
Words of welcome, to the stranger, by the monarch were addressed,
Who unto the royal palace led Abgarus as his guest.

While the rustic lingered, viewing all the glory and the pride
Rome, with grasping hand, had gathered from her conquests far and wide,
Cæsar fixed his love upon him and it bound him like a chain.
Which, though all its links were gilded, he had gladly snapped in twain;
For not all the regal splendor—all the glory Rome could boast—
E'er would still his fond heart's yearning for his loved, his native coast;
For the valley where his childhood danced its long, bright hours away,
Where the home of youth and manhood in its quiet beauty lay.
He would fain have sought his cottage, in that valley nestled low,
But so well Augustus loved him that he would not let him go.
Vain were all his fervent pleadings—vain to move a monarch's will—
Bowed he with an air submissive, but his grief was deep, though still.
And he pondered long upon it, till there came a happy thought,
And he knew that from that moment his deliverance was wrought.

When, in all his mid-day splendor, through the heavens the sun doth ride,
Like the flower his name that beareth, high we lift our heads in pride;
But when evening shadows, falling, have subdued his garish glow,
Then our hearts, subdued and humble, bend to earth like lilies—low.
Nor alone *the Father* do we honor, while our spirits kneel,
Loving Him, ourselves forget we, and for *all His children* feel.
Not as we, believed Abgarus—simple was his faith and rude,
But, though still the *cause* unknowing, the *effect* he understood.
When the latest lingering sunbeams with the evening shadows blend,
In that hour, unto the Circus, he had led his royal friend.
There were gathered beasts from every quarter of the world then known—
From the frozen polar regions and from out the torrid zone.
Never one of all their keepers dared within their sight to go,
As uncaged, unchained, they bounded, in their fury, to and fro.
Now he hailed th' auspicious moment for the lesson he would teach,
And Abgarus took a portion of the native soil of each,
Flung it down, and in a moment every beast his rage forgot,
And Augustus smiled to see them bounding to the charmed spot,
Where the earth—a tiny parcel—from their native forest lay—
"Ah! *his native home is dearest even to the beast of prey.*
Go, Abgarus—thou hast conquered—hie thee to thy simple home,
But a pining captive art thou—though an honored guest—in Rome.
I have sought thy heart to fetter, but my chains they held it not,
For its earliest loves are fondest, and the last to be forgot."

LUA DELINN.

For the New York Coach-maker's Magazine.

AN HOUR AROUND AUNT DEBBIE'S CENTRE TABLE.

BY MISS MARY E. THROPP.

"Do you believe in dreams?" said bright-eyed Nellie Thompson, on one side of Aunt Debbie's centre table, to Frank Foster on the other.

"Yes," said Frank, looking admiringly at Nellie's pretty face, "I believe in dreams, of course. I believe in day-dreams, love-dreams, and, in fact, I had one night-dream that was fully and startlingly realized."

"Now, Frank," said Nellie, approvingly, "I'm glad you're so honest; I never will believe but what men are just as much impressed by dreams, ghost presentiments and all that as women, only they are not all noble enough to acknowledge it; they don't like to appear credulous or superstitious—why, Sir Walter Scott was superstitious, and so was Byron, and Napoleon, and—but do tell us about your dream."

"Certainly, with pleasure—but do you really believe in dreams and projects, ladies? Because," and his eyes glanced mischievously at Nellie, "that information may be turned to advantage."

"I do," said Aunt Debbie's niece, looking up abstractedly from the skein of silk she had been unraveling.

"Why," said Frank, "did you ever see anything yourself?"

"No," said the niece, "but my great-uncle did, and he was an eminently practical and truthful man."

"Well," said Nellie, "to tell the real truth, I never saw anything myself, nor have I ever seen any one who did, but, somehow or other, I believe in ghosts for all that."

"Well, now," said Aunt Debbie, suspending her knitting and looking at us benignly through her spectacles, "I have seen something with my own eyes, not when they were old and somewhat dimmed as now, but when they were young and clear-sighted as yours, my children."

"Did you, though," cried Nell. "Oh, Aunt Debbie! do tell us," and "do tell us" we all chorused.

"I will, but I want to have my niece first," said the old lady, with her usual unselfish politeness (for she was fond of spinning yarns); "tell us, my dear, what your great-uncle saw."

"Well, he was riding towards the Organ Church, you know, aunt, and was cantering along almost in sight of it, when he happened to see in front of him the figure of a little quaint old man in broad-rimmed hat and drab cloak, one of the long, narrow cloaks with capes, you know. Well, my great-uncle was a good social man, so he thought he would have a chat with the little old Quaker, and spurred on his horse accordingly. But he soon found, to his great surprise, that the more he tried to reach him the further off he seemed, and, though he urged and spurred his high-mettled horse till he flew like the wind, he could not approach him. But the most provoking part of it was, the little old man didn't seem to hurry himself in the least, but he just kept right on in his steady jog-trot way, till my uncle's hair stood straight upon his head. However, he kept on after him riding, or rather flying, till they came to the grave-yard of the church, which is by the road-side, you know, aunt, and then he happened to glance up for an instant at the reflection of the setting sun on the

church spire opposite, and when he looked again the little old man was gone! Bewildered, and half-fearing that in spite of appearances he had hurried the old man till he gave out, my uncle rode about and looked in the fence corners and searched for him in every direction, but without success. Then he dismounted, and, tying his horse, went into the grave-yard and looked about among the graves, but he was not there. At length he gave up the useless search, and, remounting, rode on to the gentleman's where he intended to stop, and in the course of the evening he mentioned the circumstance and asked the gentleman's opinion about it. He replied that he had heard something similar a time or two before, and could not account for it any further than that he knew a little old man of that description was found frozen to death at the side of the road some miles below, during the past winter, and that he had been buried at the grave-yard of the Organ Church by the people of the neighborhood."

A silence succeeded for a minute or two, and then we turned expectantly to Aunt Debbie, who instantly remarked, "I cannot vouch for the authenticity of 'ghost stories' in general, but this has at least the merit of being strictly true, you may rely upon that.

"Very many years ago, when my 'infant feet,' as Mrs. Sigourney beautifully expresses it, 'had trod upon the blossoms of some seven springs,' I had one very intimate friend, little Ellen Marston, whom I loved better than any little body in the world, for I was not so fortunate as to have either brother or sister near my own age. Ellen was a gentle, graceful little being, with a fair complexion, large, tender blue eyes, and a perfect crown of golden curls about her head, that danced and floated with every movement of her flexible little figure. All this was very good and beautiful, but Ellen had that which is better—a loving, truthful and unselfish nature—and it was for this I loved her so dearly, and for this, also, she was considered a profitable companion for Aunt Debbie, who was no better than she should be, I assure you. Dr. Marston lived more than a mile beyond the village then, and whenever I was permitted to go see Ellie, I was, to my great delight, generally allowed to remain some time at Greenbank. I had been spending a week there at the time my story opens, and was sent for rather unexpectedly to return home. My brother John, then a young man, came for me, and I was to return with him next day, so we retired soon, Ellie and I, the last night we were to spend together, determining to get up early, as we had to dress our dolls differently and make some contemplated improvements in our play-houses. In fact, John's premature arrival had interfered with some very important arrangements of ours, and we had now nothing left but to make the best of a bad matter.

"The house at Greenbank was a long, low building, flanked right and left with wings a single room deep, and all on the ground-floor. A piazza, whose slender columns supported honey-suckle, jessamine and other climbing plants, extended along the entire front of the house, and was called 'Lovers' Lane,' from some old legend connected with it, I believe. This was a most attractive spot in summer time; for birds built among its vines, and the doctor sometimes placed an Æolian harp in his window near the corner column; but now the wind blew, and the snow drifted in, till it was impossible for us to play there.

"We occupied the chamber at the extreme end of the right wing. It was a well-lighted room, having windows on three sides, and this night it was particularly so, as the ground was covered with snow, over which a full January moon poured its silver radiance. The walls, curtains, and drapery of the bed were white, and, altogether, the room was almost as light as day.

"We had talked a long time, and kissed each other good-night repeatedly; but, still remembering something that the other had forgotten, it was far into the night before we became sleepy. Little Ellen had not answered my last question or two, and I was gradually sinking into a doze, when, suddenly and unaccountably, I became conscious that some one was near the bed. Whether I had been roused by a sound or movement I cannot tell, but I was now broad awake, and, haunted by an indefinable feeling of dread and fear, I lay waiting and watching for the inevitable something I felt was impending. Nor did I wait long, before, slowly and solemnly, moved a tall, white figure out from the head of the bed. (At this moment the tongs slid and fell behind Nellie, who leaped into Aunt Debbie's lap, to the imminent danger of the half-finished stocking. Aunt D. held her there, and continued:)

"It seemed like a human being completely shrouded in white; and, as it moved between my eyes and the moonlight, I could see that its ghastly face was turned towards me, and that its large, fearful-looking black eyes were fixed upon mine. Slowly it moved on round the bed, but its face turned always towards me, and its glaring eyes never swerved an instant from mine. When it reached the head of the bed again, an arm was stretched out, and a heavy ice-cold hand was laid upon my forehead. My blood seemed to congeal in my veins beneath that touch. I was stone cold with terror. I could not speak—I could not move. I was paralyzed. I could not even think, and for some time, I think, I must have been insensible. Gradually, however, consciousness returned, and with it the recollection of the fearful visitant, and the unutterable dread of a second visitation. Oh, the agony of those interminable hours! I did not dare to speak to Ellen, or to touch her, not even to move. I could only lie, and long for day, while the cold perspiration gathered upon my forehead in great drops. At last it came, and with the first movement in the house, I sprang to the floor. Ellen followed instantly. I looked at her. Her face startled me. It was livid; every hue of health had faded, and she staggered and trembled so, I could hardly get her along the corridor to her mother's room. She had seen it too—the same cold hand had been laid on her forehead, she said, and she shivered all over at the recollection. Poor little Ellie! not even the tender caresses of her mother, who took us both into her bed, could reassure her, nor the loving pressure of her lips and arms restore the warmth and glow of life to her little shivering frame. One cold chill succeeded another, and then came fever, and, for weeks afterwards, little Ellen's life was despaired of. I was conveyed home, and, for two or three months afterwards, was the victim of a low, nervous fever, from which I gradually recovered; but the worst consequence of that terrible night to me was the dread of being left alone. I could not endure to be left alone, even in the daytime, for years afterwards; and, even now, I sometimes live over the unspeakable horror of that night in my dreams. Meantime, Dr. Marston and your Uncle John, neither of whom had any sort of faith in apparitions whatever, instituted a strict search for the unprincipled person who could (as they averred) thus cruelly frighten two helpless, unoffending children. Large rewards were offered for the detection of the culprit, but without avail.

The servants were closely questioned, and proved innocent. The premises were examined, but a slight bed of snow had fallen towards morning, and there was not a footprint to be seen about the house, and the windows and out-door of the apartment (which was at the head of the bed) were found securely fastened as the servant had left them the night before, without a shadow of alteration. The door that opened into the corridor had to be unlocked, I know; for, in my trepidation, I could hardly succeed in getting it open, and I had told them so. Not a clue to this mystery could be found, on the closest scrutiny, and, in a few weeks, the unavailing search was abandoned.

"The ghost story of Greenbank was now noised abroad, and, with variations, became a fruitful topic for all the nursery-maids of the district. Some very conveniently disposed of the ghost by sending him upon a broom-stick up the chimney—others averred that he had disappeared through the key-hole—and others, more magnificent in their conceptions, shook the house to its centre, and sent him off in the midst of thunder and lightning.

"Ten years after, at a party given to Ellen by a mutual friend, Dr. ——— was introduced to me. 'I have had the pleasure of meeting you before, Miss Dodsyn,' said he, in a tone of voice unpleasantly familiar; so I merely replied I did not remember. 'Oh yes, you do,' said he, 'I have given you good cause to remember me. Don't you recollect the last night you spent in the end chamber of Greenbank. Well, I had the honor of spending some little time with you there, though I am quite certain you did not recognize me.' 'Indeed!' said I, concealing, as well as I could, my indignation to get at the truth, 'and how did you get there, sir?'

"Luckily the doctor's perceptive organs were not very largely developed, so he answered without hesitation, 'Well, as I was an old student of the doctor's, the room you occupied was mine, and I had a night-key to the door at the head of the bed, which opened from the piazza, you know. I had had leave of absence for a couple of weeks, but returned at the end of one, and going to my room and finding it so well tenanted, I determined to have a little fun at your expense; so I procured a sheet, chalked my face, held my hands in the snow till they were almost frozen, and then made my entrée. Your bright eyes were very observant, Miss Dodsyn, and I had to look very fiercely to frighten you.' (Little Nell closed hers.) 'And how did you get away?' I asked, calmly, forcing my indignation down. 'Oh, I remained some time at the head of the bed, and then stole out noiselessly.' 'Well.' 'But before that, while I was making preparations for my nocturnal visit, a man came for Dr. M. to attend a sick woman in the neighborhood, and I agreed to go in his stead, telling him to go on and I would follow soon. I was obliged to remain with the patient long enough to hear about the commotion at Marston's, and I was rather apprehensive. Fortunately for me, however, an inch or two of snow had fallen in the mean time, which prevented any one's knowing that I had been at Greenbank.' 'But'—suggested I—'would it not have been better for you to have returned to the doctor's, and remedied the evil, as far as possible, by a full explanation?' 'I thought of doing so at the time—meant to, in fact—but when I heard how seriously a mere practical joke was taken, I went back and filled up my leave of absence at R——, as I had originally intended.'

"'But if you were afraid to discover yourself then, why do you do it now?' I inquired.

"'Oh,' said he, gallantly, 'what have I to fear from a gentle, charming young lady like yourself? Besides, at this distance of time I am safe, assuredly.'

"'Scarcely, sir!' said I, exasperated beyond endurance. 'If I had strength enough in this right arm, I would thrust you from the room now—but there is my brother.'

"John, who happened at this moment to glance towards me from his station opposite, saw the unusual agitation of my manner, and crossed over immediately, but I, knowing the impetuosity of John's character, had presence of mind enough to ask him to take me out to the fresh air, attributing my emotion to a temporary cause. God forbid that I should be the cause of mortal combat between two of my fellow beings."

(Here Aunt D. paused to take up a stitch, and we were all vociferous in our exclamations against the unfortunate doctor. Nellie thought he ought to have been punished—not killed nor cart-whipped—she didn't mean that, oh no—but published in the papers, or cut by the ladies, or somehow, and Frank thought he'd just like to have pitched him out the window, for *fun*. The stitch all right, Aunt D. resumed:)

"The old house at Greenbank has long since given place to a modern and more stylish mansion. The doctor and his wife sleep together, side by side, in the quiet grave-yard attached to the old place, and Ellen is now the joy and sunshine of a planter's home on the beautiful banks of the Savannah, where she is trying, with God's assistance, to train a little Ellie and Debbie, with one or two other young immortal beings, for eternity."

Aunt Debbie was silent awhile after concluding, and abstracted, as if busy with old associations; then, recollecting herself, she turned to Frank for his dream and its consequences.

"Well," said Frank, with a preparatory ahem and a comical gravity of manner, quite irresistible, "I dreamt I fell out of bed the other night, and lo and behold I awoke and found myself on the floor!"

Pen Illustrations of the Drafts.

SCROLL-QUARTERED COACH.

Illustrated on Plate XIX.

MR. WALTER R. BUSH, of Albany, has kindly contributed this draft to the Magazine; but, in doing so, very modestly disclaims any originality about it. We fear that his extreme modesty in this instance may have deprived him of the credit justly his due. He, however, says: "I I have no recollection of copying, although I might have seen something like it in many respects." We consider it a very fine draft, whether original with our friend or copied, and therefore give it a place. On comparing this with the former illustrations of the coach, as given in this work, it will be found to differ from them in several points, and, consequently, we give it more for the sake of variety than as a representative of the fashion. As manufacturers, we think Messrs. Goold & Co. fully up to the fashions in getting up work, and for durability their work is seldom equaled. Track, 4 ft. 8 in.

CHILD'S CARRIAGE.

Illustrated on Plate XX.

Mr. Ralph Smith, of New Haven, contributes this very pretty little child's carriage to the Magazine. It has been engraved from a photograph, without any reference to scale. We think, however, that any person wishing to make one can get all the idea necessary to do so from our picture. You will notice that a dolphin's tail forms the toe-board, and a nautilus-formed shell the body, which the dolphin appears in the act of swallowing—*and such a mouthful!* These were carved by Mr. G. H. Clinton. The whole is painted black, and touched up with brown and white to imitate the natural shell. Trimmed with coteline for body-linings, and figured silk in the head-linings. The top is enameled leather—the springs, joints, and bands being full-plated with silver. The price is $40.

THE ALBANY SLEIGHS.

Illustrated on Plate XXI.

We give on this plate three different varieties of the sleigh, all in perspective, and all from ambrotypes of the manufactured article. They have been taken without regard to scale, and no doubt will prove quite as useful, as guides in manufacturing, as any with which the craft have been "bored" for the last three years. This is not saying much, to be sure, but it will show that we are not inclined to give a thing for more than it is worth, which value in this case we shall leave with those who have written us "please give us some sleighs." We are under many obligations to Messrs. Goold & Co. for these drafts, which represent truthfully their originals.

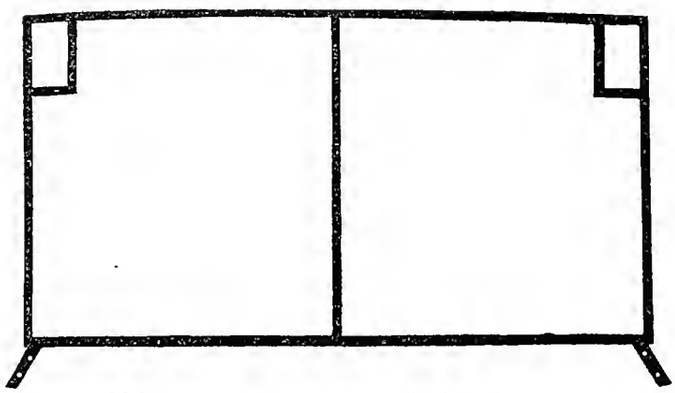
☞ We would be very much obliged to our friends if they would furnish descriptions of their drafts, to accompany their publication, when they hand them in. No one knows better than the manufacturer how a body is made, &c., &c., and it would lessen our editorial labors very much, besides giving our readers variety in detail. Where any may feel incompetent to do so, so as to meet the public eye, we will very cheerfully prepare their "rough notes" for publication, and give the contributor full credit.

Our next number will contain a fine draft of a hearse lately built at Albany, two light buggies, and a fourth draft, not yet decided upon.

The Fate of a Monopoly.—The company in Paris which, a short time since, undertook to monopolize all the hackney coaches in that city, and to perform in its collective capacity what private enterprise and superintendence was much fitter to carry out with any chance of success, has proved a failure. The "Imperial Company of Fiacres" has got into debt two millions and a half francs, and is now borrowing the amount of its debts from another company, on the security of its "rolling stock."

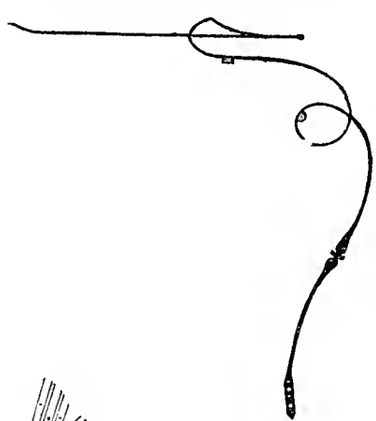
Sparks from the Anvil.

A PLAIN DASH.



It would be a very easy task to fill this department with designs of a fanciful nature, but which our readers would never make, perhaps. In this instance, we choose to give another picture of the times—we might say "hard times"—as everybody seems to think they are. Many shops here have made such dashes as our sketch presents, and some with two additional "bars," placed so as to come just where the straps to the flap secure the rolled-up apron. In a curved dash they answer a very good purpose, since the bars effectually prevent the apron and straps from wrinkling the leather in front of the covered dash, which is so often found to depreciate the value of some of the finest work. It will be understood that the squares at the upper corners form the dash handles, when the frame is covered.

A DESIGN FOR A JENNY LIND DASH-RAIL.



A friend sends us this rail for a wooden dash. We give it in a half figure. The straight portion may be plated with silver. The whole design will, probably, be new to some of our readers.

HANDLE FOR A PHÆTON.

This is a very tastefully shaped handle for a Phæton, which tells its own story well. It shows a portion of the body with the slat-irons attached. The whole presents a very unique appearance, for which we are indebted to the same gentleman who favors us with the Jenny Lind dash-rail, above.

For the New York Coach-maker's Magazine.

THE CLIP KING-BOLT IN A NEW ASPECT.

NEW YORK, September 27, 1858.

EDITOR OF N. Y. COACH-MAKER'S MAGAZINE:

Dear Sir—The September number of your Magazine contains an article upon what you call a Clip King-bolt, and that Messrs. Stivers & Smith, of this city, are the first to adopt this plan. In this respect you are in error. Messrs. Stivers & Smith were not the first to adopt the plan. My father is the inventor of this, as well as some other trifles in the line, for which he has never received credit.

About two years since I built a light skeleton wagon, with the king-bolt exactly as you describe it, under the directions of my father, which was the first I ever saw or heard of it, and, I believe, the first that ever was built of the kind. He talked then of getting a patent for it, but has neglected it until now. He may, however, do so yet, if not too late. Since then I have built numbers of them, and have now, in my shop, two of them, with a stay underneath, as in ordinary king-bolts. It is, undoubtedly, the best plan ever invented for light work. Honor to whom honor is due.

Yours, respectfully, J. N. REYNOLDS,
182 Suffolk street, N. Y.

[The above letter takes off somewhat from the *originality* we credited to Messrs. Stivers & Smith, by this prior invention, by the father of our correspondent. We think, however, that the good nature of the parties—all of whom we are happy to number in our list of friends—will settle this *questio vexato*, without resort to "shooting-irons." We know that a smaller matter than this has produced a long and bloody war; but fortunately *we* live in an enlightened age, when plough-shares are more in use than spears, and when the cause of truth may be successfully vindicated with weapons bloodless as the quill.—ED.]

DESIGN FOR A BAR AND STAY FOR THE CLIP KING-BOLT.

MR. REYNOLDS, whose communication in relation to the Clip King-bolt we give above, sends us the accompanying design for a "bar and stay" to the same. We think this addition very necessary, in order to relieve the strain on the king-bolt and to prevent the axle and bed from "turning under." We have had the cut done in conformity with the design furnished us, but we think an easy and graceful turn of the drop-stay, after leaving "the bar" or coupling, would greatly improve it, and besides make it less liable to break, as all iron-work, turned as in our example, is apt to be "galled" in the process.

AT Aberystwith, England, in the churchyard of St. Michael's, is the following characteristic epitaph, in memory of David Davies, blacksmith:

"My Sledge-hammer lays reclined,
My Bellows, too, have lost their wind;
My Fire's extinct, my Forge decayed,
And in the dust my Vice is laid.
My Coal is spent, my Iron gone,
My Nails are drove, my work is done."

Paint Room.

For the New York Coach-maker's Magazine.

LEAD-COLOR.

BY JAMES SCOTT.

IN my last contribution I gave you some hints concerning priming, which subject I shall now follow up, with a few remarks on what may be properly termed "leading." After a body has been primed a sufficient length of time for that coat to become perfectly hard, lead-color is the next thing in order. This time you may use a *little* turpentine and dryer, enough to harden in three or four days. If the job is not hurried, apply the paint as thick as it will work freely; but, if you have not plenty of time, mix thin and put on an extra coat. Two thin applications will dry *clear through* quicker than one when plastered on heavy and thick.

The next operation is puttying; and if the reader is not acquainted with an approved method of preparing putty or hard-stopper, as it is often called, he will please refer to the "Paint Room" of the September number. In applying priming and the first coat of lead, it is well to be particular about crowding the paint into all holes and inequalities needing puttying, as it will not adhere well to naked wood or iron; it will, also, in a great measure, prevent it from shrinking or bulging out. When filling holes, always allow the putty to protrude a little, it gives room for shrinking during the process of drying, and will cut down level when you rub the filling or "rough-stuff." Plastering for open-grained wood, should, I think, be mixed with keg-lead, thickened with whiting; add a little japan or litharge, to dry it.

VARNISH.

WHAT strange antics varnish does cut up, when it takes a notion. Who is there among the craft long-headed enough to explain, satisfactorily, by what curious hypothesis these freaks are caused. I have heard innumerable theories advanced, and very ably argued, and yet my experience has proved each and all of them fallacious. One declares that, when the air is heavily charged with electricity, you should not varnish. Very plausible! But I have time and again put on a first-rate coat of varnish, when the very earth trembled with the violence of a thunder-storm, and the sky was lurid with darting lightning. Another warns you to beware of varnishing while it rains, or when the atmosphere is damp. While still another is of the opinion that hot dry weather is unfavorable, and extreme cold, ditto. Humbug! all of it. That there is some subtle influence in the atmosphere, which is the cause, there is not the shadow of a doubt, but what that influence is, or how it can be guarded against, are questions which will require the labors of an investigating committee of scientific men, ere they can be answered. It is but a few days ago that a case came under my observation, which was the strangest I have ever seen. Two bodies were varnished in different rooms, in the same building; the varnish used on both was drawn from the same can; there was no perceptible difference in the temperature of the rooms, and yet the varnish on one of them looked like the skin of a person badly scarred by small-pox, while the other was bright and smooth as the surface of a mirror. It is true that

cases of this kind do not often happen, yet their occurrence is quite frequent enough to merit investigation at the hands of all who are interested. The *cause* once ascertained, measures may, no doubt, be taken to prevent the effect. Who will solve the problem?

☞ In consequence of the crowded state of our columns, we have necessarily been obliged to leave out Mr. Scott's article on Striping, until our next issue.

ORIGINAL ORNAMENTAL DESIGNS.

Illustrated on Plate XXII.

No. 1. This design was sent us for the Magazine by Mr. J. C. Norris, of Canada East. The eagle should be painted to imitate nature, of course, the scroll drop-lake, showing marine blue, tips of leaves touched with silver white, the central shield with blue, the lines gold color, dots white. We think this a very pretty design, and will look well on a coach or Rockaway door quarter, if rightly executed.

No. 2. This and the next design are from the pencil of Mr. Ferdinand, heraldic painter, of this city. The mermaid to be laid on a gold ground, the lower portion of the body shaded with ultra-marine, the scales and outline black, and the upper portion with some flesh-colored paint. The water scene dark blue, with light and yellow tinge. Surrounding ornamental work should be gilt, shaded, and would be much improved by a few judicious touches of light colors.

No. 3. Surrounding ornnmental scrolls, gilt and shaded, shield red or blue, the initials gold.

Trimming Room.

GEOMETRY OF CARRIAGE TOPS.—No. 2.

BY M. G. TOUSLEY.

After obtaining the measure of the bows, by means of the scale given on page 74, the question next arises, what kind of bow-slats are the best and cheapest? Some manufacture them from wrought iron, at a cost of from $1 to $1 25 per set, and more, if plated. Others use the common malleable slat-iron and cover the ends of the bows with a socket. This socket costs, in labor and material, from 50 cents to $1 50 per pair. No stitched socket can be made by hand for less than $1, and must be plain at that price. From these figures it will readily be seen that the covers, which are needed to conceal a clumsy and cheap malleable iron slat, will cost just about as much as a finely-made and plated slat-iron; so that the cost of the *cheap slat-iron* is a dead loss instead of a saving. The manufacture of single sets of neatly-constructed wrought-iron slats is a loss of time, and cannot compete with an article that is systematically manufactured. Finding this to be true, many different forms of slat-irons have been invented, and their manufacture covered by a patent. For a cheap and durable iron, the Smith's patent has been received with considerable favor.

Shelton & Tuttle's patent is used in many parts of the East, where cheap work is manufactured, as the socket end of the iron can be made to receive the bow in such a manner as to allow the whole to be finely finished with paint, instead of being covered in the ordinary way. All of these styles are good, and can be recommended for the purposes for which they are designed; but, for a fine slat-iron, *strong*, *handsome* and *convenient*, the Cook's patent has no superior. The japanned iron is strong and finishes up to the bow neatly, while the plated ones are accompanied with capped nuts and plated screws, and the cost of a full plated set is less than that of the cheapest malleable ones covered with a respectable socket, and a carriage will sell quicker, if not better, with the former applied. The superior convenience of the Cook's patent is no inconsiderable item, as the bows can be covered separately, or the covers stitched by a machine and slipped on, and the irons inserted afterwards. Others may differ with me in my views, but this is no puff, as that is an article which finds no place in this department.

In writing this series, I must be allowed to speak freely of all the inventions which enter into the composition of the part under consideration, as I intend to dissect a carriage top, and treat of it in all its parts, *candidly*, with the intention of advancing many useful hints, and of eliciting some from others. Having disposed of the subject of "bow slats," which seemed to stand between measuring and setting bows, I shall proceed, in the next article, to give a new method of applying the measure (obtained from the draft) to the bow, in cutting it off and attaching it to the iron, which I believe to be not only original but very useful.

NEATNESS AMONG TRIMMERS.

Order is Heaven's first law, and in no department of our business have we found less of this law than in the trimming room. Some workmen will have their work-bench filled with tacks, knobs, buckles, chalk, paste—in short, a sorry hodge-podge of here a little and there a good deal of the evidence of slovenliness on the part of the occupant. Then, again, the patent leather is unrolled and *kicking* about the floor, the moss—nobody *uses* moss now-a-days—and curled hair are everywhere, and the paste is sticking to everything in use. We have seen trimmers, whose jobs have been "turned out" with such a variety of *paste shading*, about the top and other parts of the leather, as to almost entirely spoil it. Such workmen are not fitted for their profession. The old adage, "an ounce of prevention is better than a pound of cure," was never more appropriately exercised than in the trimming department. We all know that leather, once soiled, can never be made to

look as good as new. For this very reason, a trimmer should keep his hands clean, and his work, as far as practicable, as he proceeds, covered up.

Not long since, we saw in a trimming room any quantity of scraps *hanging* on the floor, and a pile in one corner, of dirt, and leather, and paper, and other material, as the merchants say, "too numerous to mention," a fine place for one to raise his own fleas, and no doubt they find ample *feeding ground* near at hand—in the sloven's own person! But all are not like *our hero*. There are some trimmers whose habits are worthy of commendation—they are neatness itself; such we would hold up, to the class we have been describing, as worthy patterns for them to follow.

[*From the London Field.*]

HARNESS BLACKING.—The following ingredients make excellent harness blacking:—One pint spirits of turpentine, one ounce Prussian blue, a quarter of a pound of beeswax, one table-spoonful of lamp-black. Slice the wax very thin, put it in a tin vessel, pour on it the turpentine, cover very closely, leave for twenty-four hours, then stir it up, grind the other articles, and mix them in it thoroughly. —N. B. To be kept covered, or it becomes hard.—VAURIA.

A correspondent of yours wants a good recipe for harness blacking:—Spirits of turpentine, 1 pint; add beeswax until as thick as cream; place near the fire; take Prussian blue, one-third part, best ivory black, two-thirds part, mix and rub up with beeswax until a drop placed on the nail cannot be seen through, then add a thick solution of shellac in spirits of wine, with 2 oz. of gum benzoin to the pint, and of soft soap 1 oz., and melt together in a hot water bath; lay on with a black-lead brush (very hard), and polish with a soft brush; use once per month. It will polish at once after washing.—MEDICUS.

If C. W. B. tries the following, I think he will not be disappointed:—Beeswax (slice fine) 8 oz., spirits of turpentine, as much as sufficient to cover it; let it stand till dissolved, then well mix with 4 oz. of ivory black, half an ounce of Prussian blue, and 2 oz. of olive oil, previously well rubbed down smooth together.—N. B. If it should get too hard by keeping, add a little turpentine.—T. C. B.

If C. W. B. will get carefully compounded by a druggist the following recipe, I think it will save his pounds, shillings, and pence:—Half a pound of beeswax, three quarterns of turpentine, a quarter of a pound of dross black, a quarter of a pound of indigo, and one glass of the oil of thyme. When prepared, keep it in a tin canister, covered. The above recipe I have used for years with good effect. Apply it in the usual way, with a brush rather stiff, first washing the harness well of all other ingredients.—WILL SCARLET.

A LARGE WAGON-TRAIN.—There have several "gentile" merchants lately set up in business in Utah, in whose employ 600 wagons and 7,000 oxen are engaged in the transportation of merchandise across the Plains to fill their stores. The contractors for supplying the United States army have also 1,120 wagons, divided into trains of thirty-five each, the first of which left the frontier on the first of June, and arrived in Salt Lake City the 11th of August, after a journey of seventy-two days.

The New York Coach-maker's Magazine.

NOVEMBER 1, 1858.

E. M. STRATTON, Editor.

TO READERS AND CORRESPONDENTS.

"T. H. M."—In our haste, we did not finish our answer to your inquiries in the October number. "The enameled process in painting" is performed by spreading three and sometimes four coats of flake-white over the surface of the ground you wish enameled. The color of the varnish, afterwards spread on, imparts to it the enameled appearance and completes the job.

"R. M. and others."—With every disposition to accommodate our numerous friends in the country, in their varied inquiries, yet we find it a burthensome task. Correspondents will hereafter bear in mind, that in cases where we receive letters on special business, no ways relating to the Magazine, they must enclose *two* three-cent stamps, the one to pay the postage on the return letter, the other to pay the city carrier's charges—which we are obliged to pay in all cases—or no attention will be paid to them.

"MIDNIGHT MUSINGS" is too sleepy for our columns. The author is advised to try his hand at "sober prose," where no doubt he will succeed better. We give enough of his poem *to immortalize* the writer, with the remark that *we think it is full as good as Miss* Virginia Watson's, of the defunct Western Coach Maker's Mag.

"Oft, in dreams, wild fancy
Has led me, in her wild delight,
To those bright scenes of other days—
Once so joyous, gay and bright,
Where oft we've sung the live-long night!"

This is not the first instance where "wild fancy" has led man astray. We advise *our correspondent to shun her teachings hereafter, and stay at home*, instead of "*baying the moon*" "the live-long night."

☞ We very frequently receive letters so stupidly directed that we cannot possibly tell where the writer hails from. The following is a case in point:

"Root, Sept. 10, 1858.

Mr. E. M. Stratton:
SIR,—Please send me a copy of your Magazine. Yours, &c.,
T. P——."

Our correspondent leaves us to find out his State from the P. O. mark, which, as in this case, is often illegible, and consequently Mr. T. P. could not be attended to. In writing, please name *the town, county and State.* A little more care will prevent any delay in serving our friends.

OURSELF AND ENTERPRISE.

BROTHER CRAFTSMEN—This is the sixth number of *your* NEW YORK COACH-MAKER'S MAGAZINE, and we think that by this time you have become convinced that ours is intended to be something more than a catch-penny undertaking, and that, when we told you of our intention to publish a work worthy of the craft, we meant all we promised. We believe we have thus far performed all that we agreed to do, and, with a little violence to our modesty, would intimate *that we have done a little more.* Let us see. We promised, in our prospectus, to give *three* plates monthly. Have we not always given as many as four, and, in two numbers, five each? Have we not invariably given you twenty pages of reading matter, interspersed with numerous and expensive illustrations?

Thus far we have no reason to complain. With the

effects of the panic still visible—very sensibly so to carriage-makers—yet our patronage from the craft has exceeded our original anticipations. Our respectable number of advertisements and subscribers will insure us against loss during the first year of its publication, and place us in a position to ask confidently for that increase of patronage which alone will remunerate us and place our publication on a paying basis. To this end, we invite our friends—we are happy to find we have many all over the country—*now* and during the winter months, when the prospects of success in canvassing will not warrant us in employing a traveling agent to call upon you—to use a little exertion to induce those to subscribe who may be within the circle of your influence. There is scarcely a friend to this enterprise who may not, by a little exertion, be the means of adding one or more names to our lists of subscribers, and there are many who, by a little extra effort, might send us clubs of three, six, eight, or ten, and perhaps more, and so help to "grease our wheels," that *your* Coach-maker's Magazine may be enabled to run along its *silent highway* smoothly, and profitably to its conductor. Come, friends! please put your "shoulder to the wheel" and give us a lift, will you not? We believe you will. This will stimulate us to greater exertion, and its effects will be seen in the future, as our design is not merely to make money, but we are very ambitious to give the craft a work worthy of them. Remembering that this is *now* the only Magazine of the kind in existence, let us see what you can do for it, in the way of increasing its circulation.

There are some to whom this work has been regularly sent, under the assured impression that they would contribute to its departments. Need we say to such as we name, that, unless they *step up to the captain's office and settle*, either by MS. or the *tin*, we shall be under the (to us, painful) necessity of "setting them adrift in an open boat?" We do not see the consistency there may be in any individual's receiving our beautiful work, and yet not returning to its publisher a *quid pro quo*. However, we do not expect to be compelled to resort to any such extremity; we think our generous friends need only to be reminded of their engagements to fully redeem them.

Lastly, there are a few—glad to be able to say *only a few*—who for three or four months have received this work, who, on sending in their names, promised to "pay on the receipt of your first number," but have neglected to do so until now. To such, we promise, this is the last visit our monthly makes to such *veracious* patrons, *unless they come "right up to the scratch."* A word to the wise is, &c.

THE FAIR OF THE AMERICAN INSTITUTE AT THE CRYSTAL PALACE, NEW YORK.

After considerable delay, said to have been caused by the temporary occupancy of "the Atlantic Cable committee," the Thirtieth Annual Fair of the American Institute was finally and formally opened on the 22d September. After a week's postponement it might have been supposed that exhibitors had had time enough to have come forward and taken up their allotted space, but such was not the case. At the time of opening, the building presented to the public but a sorry show of empty space. In the evening of the day mentioned, the customary inauguration ceremonies were gone through with, the edifice being brilliantly illuminated. Judge Meigs delivered a short address, in which he stated its objects and aims, commending to his hearers their favorable co-operation in this enterprise, which, if analyzed, would, perhaps, be found quite as much for individual profit as for the public good.

On the 4th day of October, in the afternoon, we made a professional visit to this celebrated palace, where we found a few sleighs, buggies and other vehicles, but the show in this line, as compared with former years, was very small, and is attributable to the effects of that "masterly inactivity" which appears to have taken possession of every department of business life. We may state, that Messrs. Stivers & Smith, of this city, had a large stock of sleighs and buggies on exhibition; Mr. Ed. Smith, a very fine no-top buggy; Mr. D. Daly, of Brooklyn, a no-perch trotter, weighing only 100 lbs., and a few other manufacturers were making a little show, but very little was found of much interest to our readers.

Later.—Within less than twenty-four hours from the time to which the above remarks refer, the Crystal Palace, a fruitful theme for penny-a-liners and newspaper scribblers generally, was a complete heap of smoking ruins. At ten minutes past five o'clock, P. M., October 5th, a fire was discovered at the Forty-second street entrance. From this point the flames spread with such wonderful rapidity to every part of the huge edifice, that it was with great difficulty that the two thousand visitors in the palace at the time could be got out without danger to life. This, however, was done, and in about twelve minutes after the fire was first discovered, the lofty dome fell in with a dreadful crash of glass and iron, and in less than one-half hour the structure—the cynosure of all eyes, which, since its erection in 1852, has been a prominent object to strangers in visiting the city, by the Harlem and New Haven Rail Road—was among the palaces of the past—annihilated.

It would be a difficult matter to estimate correctly the value of the property; but it is said that when, some time since, the American Institute essayed to buy it, they valued it at $125,000. The statuary and goods, valued at $225,000, would make the sum total $350,000. This, probably, is a very low estimate. Its original construction and decorations cost about $635,000. The losses to the Institute, in decorations and prospective profits from the season's exhibition, which had scarcely got under way, coupled with the heavy losses to some of the exhibitors, make it a serious matter all around. It is thought that the exhibitors, alone, lost about $158,000.

The building was, probably, the most magnificent structure ever erected on this Continent—the principal dimensions of which we add for future reference: From the ground to the gallery floor, 24 feet; to top of second tier of girders, 44 feet 4¾ inches; to top of the third tier of girders, 59 feet 10 inches; to ridge of nave, 67 feet 4 inches; to top of bed-plate, 69 feet 11 inches; to the top of the upper ring of the dome, 123 feet 6 inches; from the curb-stone, on the Sixth avenue, to the top of the lantern, 151 feet; to the top of the towers, 769 feet. The area of floor and galleries was 249,691 feet, or about 5¾ acres.

The original stockholders—just as we predicted at the time of building this palace—lost all they invested in the undertaking, some three or four years ago, and the building was, in June last, taken out of the receiver's hands, in whose possession it then was, for the benefit of some bond-holders, by the city authorities, who claimed possession of the property by the terms of the original lease to Edward Riddle, in 1852, for the purpose of erecting the edifice for the Great Exhibition of the Industry of all Nations.

How the fire originated appears to be a mystery, although, with the readiness of ignorance, it is, for lack of a better reason, attributed to an incendiary. There is no question about the property-holders, in the neighborhood, wishing it was out of the way for a long time, and this event is but the consummation of their desires, and the end of its vicissitudes and troubles. *Sic transit gloria mundi.*

MORE OF OUR ADVERTISERS.

SINCE our general recapitulation in the July number, our kind advertising friends have favored us with the following patronage:

AXLES & SPRINGS—Spring Perch Co., Bridgeport, Conn.
" " —Tomlinson Spring and Axle Co., " "
COACH & CARRIAGE HARDWARE—White & Bradley, " "
FELLOES, SHAFTS, &c.—Smith & Barlows, " "
LACES, TASSELS, ETC.—W. Boston, " "
WHEELS & MATERIALS FOR DO., &c.—F. Lathrop & Son, " "
VARNISHES, JAPANS, &c.—F. W. Parrott, " "
AXLES & CARRIAGES—D. Dalzell, South Egremont, Mass.
ANTI-RATTLING SHAFT FASTENERS—W. S. Chapman, Cincinnati, O.
LACES & COACH TRIMMINGS GENERALLY—Hayden & Letchworth, Auburn, N. Y.
COACH-DOOR HANDLES, &c.—Cary & Young, Newark, N. J.
COACH LAMPS & PLATING—C. N. Lockwood, " "
COPAL VARNISHES—Pierson & Robertson, " "
" " —Price, Bond & Co., " "
" " —S. P. Smith & Co., " "
CARRIAGE SPRINGS—W. Wright & Co., " "
HUBS, ALL KINDS—Wm. Miles & Co., " "
CARRIAGE HARDWARE & TRIMMINGS—F. S. Driscoll & Co., N. Y. City.
IMPORTER AND MANUFACTURER OF PAINTS—J. Kohnstamm, " "
PHOTOGRAPHING ON WOOD, AND ENGRAVING—Waters & Co., " "
SASH & SASH-DOORS—Henry Moore, Jr., " "
SPRINGS, AXLES, &c.—Samuel Mowry, " "

All the above gentlemen are *true as steel* to the interests of carriage-makers—the sash-maker included—and which they have manifested by telling where our friends can find the best articles in their line, and particularly in contributing *material aid* to the Magazine enterprise, without which our wheels *might* clog. However, be that as it may, the above, together with another "crowd" *counted out* in our July number, are the most generous, fair-dealing and correct business men *we have seen* since "the Panic" set in; and as they have been *true* to us, we trust our friends will be *true* to them, by letting them know, when they want anything in their line, that they are not forgotten. There is one thing we wish to enjoin on the reader—*don't charge the Editor with selfishness in writing this article!* It is *plainly* intended to benefit *the* craft in general, and *our* advertisers in particular.

AGENTS WANTED.

WE are anxious to obtain a few good agents, local and traveling, for this Magazine, in different portions of the United States and the Canadas. We would be willing to give the sole agency for Maine, Massachusetts, Pennsylvania, Maryland, Ohio, Indiana, Illinois, Kentucky, &c., to different individuals, who could present respectable and approved credentials, as to good character and moral worth. We should expect that whoever might be engaged would canvass their allotted territory with spirit and energy, and make fortnightly reports of names to this office, at the same time remitting us all moneys, less the per centage allowed to agents in our agreement. Those who have a taste and the qualifications for engaging in this enterprise, will learn our terms, and, if mutually satisfied, be furnished with the necessary authority-papers, on application by letter to the publisher. This call, be it understood, only applies to such as are willing to travel at a per centage, paying their own expenses. Agents who belong to the craft preferred.

WHO WANTS BUSINESS?

IF there are any persons who want a little more business than they can attend to, and do not exactly know how to reach such a condition, let them read the following letter to the editor, and go and do likewise.

NEW HAVEN, Sept. 22d, 1858.

MR. E. M. SRATTON:

Dear Sir—Enclosed I hand you my check, No. 480, for twenty-five dollars, in full for advertising one-quarter

of a column in the New York Coach-Maker's Magazine, for twelve months. *You will please not insert the advertisement again, as my business has so rapidly increased that I find it impossible to fill my orders.*

You have only got out four numbers, but I have paid you for the whole year, and I assure you that I am *well satisfied.* Wishing you and your enterprise *much success,* I remain your friend, G. F. Kimball.

P. S.—If the twenty-five dollars do not cover the whole amount, please inform me by return mail and I will remit. Yours, with respect, G. F. K.

Frank Leslie's Illustrated Newspaper is one of those interesting and independent weeklies we are glad to receive among our exchanges. Its influence is very great upon the community, which has recently been shown, in its complete upsetting of the swill milk imposition, as practiced upon the better class of our city population. Published at 13 Frankfort street, at $3 a year.

Editorial Shavings.

The Cab-drivers' Grievances.—The hackmen, numbering some eight hundred in this city, who have so long imposed upon the public, begin, by their whinings, to impress the minds of the suffering with the fact that their rascality—heretofore—has made their business anything but profitable, at the present time. Smarting under the effects of their own conduct, they recently sent a deputation of twenty-five carriage-drivers and hackmen, to wait upon the Mayor, in reference to the restrictions placed upon them, in view of suppressing the extortions of ticket-swindlers and others, to whose vile practices these "hackmen" are ever ready to lend assistance, and in whose gains from dishonesty they are ever ready to share. *They* say that every needful caution would be secured, if the owners of carriages were compelled to take out one license for each carriage, and that the driver wear and exhibit a corresponding badge. If—as the city "Fathers" propose, in deference to their wishes—these drivers are compelled (!) to take out licenses, and wear a badge, what more security against trickery shall we gain, than for years past? But read the Aldermanic propositions:

"Such drivers will be allowed to solicit for fares, the protection to the public being the badge, name and number exhibited and registered, as the guarantee of their instant liability to arrest, upon the proof of any fraudulent use of the accorded privilege. Each steamboat and railroad landing will have a place set apart for these men to stand and solicit, as in Baltimore, Boston and other cities, so as to prevent unnecessary intrusion upon foot-passengers in the street. It is understood that a meeting will be held of licensed hack-drivers on Wednesday evening, to form a 'Protective Association,' and none will be allowed to belong to it but citizens of good character, 21 years of age. Any imposition upon the public is to be followed by instant dismission from this Association."

The Teleki, a Turkish Conveyance.—The authoress of "*In and Around Stamboul*" says:

"Imagine a very dirty, tawdry, diminutive Lord Mayor's coach, or a half-penny edition of Cinderella's pumpkin, with two most wretched white horses tied to it by a strange entanglement of leather thongs and rope. A charm of blue and red beads, against the evil eye, hung around the neck of each of these poor animals, whose appearance was far more likely to inspire feelings of pity than of envy. 'Are we to carry the horses, or are they to carry us?' said I to Vassili, as I stood with the magnificent Espinu in the gate. The Greek driver laughed heartily on this being translated to him, but declared that his cattle would do the journey well. Having got the vehicle, the next difficulty to be overcome was how to get into it. No step, no door! I saw, with dismay, that Espinu and I (neither of us at all in the fairy style) must inevitably take a flying leap through the window, which was obligingly opened for us. I must say that my heart rather misgave me for a moment, especially as I saw the Armenian bishop's eyes gleaming through the opposite lattice; but presently taking shame to myself that an Englishwoman should quail at anything, and invoking the spirit of the clown I had seen so cheerfully risk his neck in the last pantomime, I tucked up my petticoats as high as consideration for the Armenian bishop would permit, and one spring from the loose stone at our door settled me comfortably on all-fours at the bottom of the *teleki*, with no other injury than a slight knock on the head."

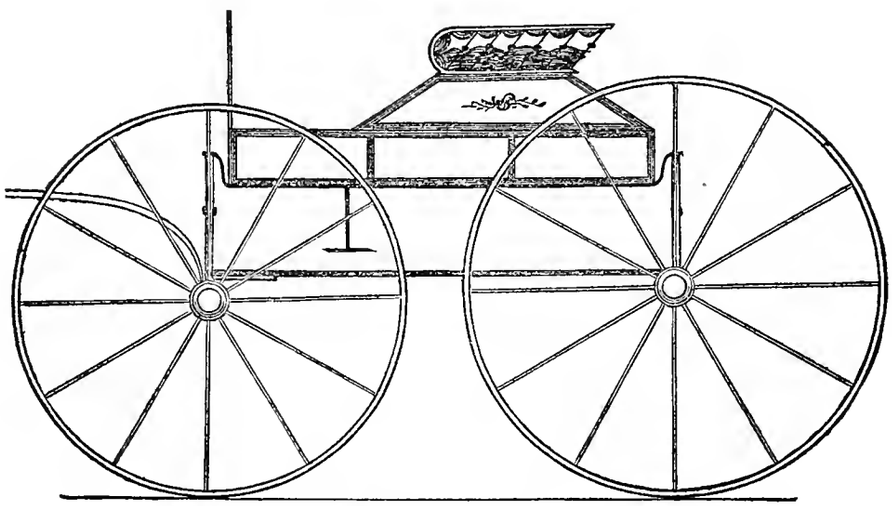
A Carriage Road in Turkey.—A route for a carriage road has just been surveyed by the French from Damascus to Beyrout, which they have indicated by stones bearing numbers. It is supposed that it will require three years in which to complete it, and that it will cost from 3,000,000 to 4,000,000 francs.

A Queer Vehicle.—The correspondent of a cotemporary, writing from the Adirondack, says: "I noticed an extraordinary vehicle that I had not seen before. It was mounted on four wheels about the size and shape of four good-sized pumpkins. They had been cut off from the end of a gnarled log, and holes knocked through them, into which axletrees had been put, strong enough to bear a small house. A pair of immense shafts were attached, near which was lying a single yoke, which looked as if it were a good load for one man to carry. After puzzling my brain awhile in vain conjectures as to what sort of monster this extraordinary structure belonged to, I turned to the settler and inquired of him. He gave a low chuckle, as if enjoying hugely some pleasant recollection, then replied, 'Why, you see, that's for my bull. I was passing Johnson's clearing one day, who had a big, savage bull. Now, this bull had, a few days before, come near killing him, and he wanted to get rid of the brute, for he was afeared of him. So he hollered to me and asked me if I didn't want to buy his bull. I told him yes. 'What'll you give?' said he. I put down a low figure. 'Take him,' says he. I drove him hum, and he was as ugly a devil as you'd want to see. Wall, I got this consarn made for him, and put him in it, and worked him right down, and I keep him worked down, so that he is now tame as a cow.' 'But what do you draw with him?' I asked; 'that heavy thing with those four round billets of wood for wheels must be a load of itself over these rocks and stumps

and uneven ground.' 'Oh, no,' said he, 'he does all my work; he thinks nothing of a ton of hay and a saw log two feet through; he makes along slick as can be.' I should honestly judge that an animal, that could drag a ton of hay on such wheels as those over his rough clearings, could carry, in a wagon constructed on the ordinary model, ten tons easily."

PUBLIC OMNIBUSES.—The Board of Aldermen has adopted a resolution directing omnibuses to be driven at a uniform speed. While our authorities have this matter in hand, they would do well to take some steps in regard to the overcrowding of public vehicles of all kinds. The City Railroads have always taken in as many persons as could obtain standing room inside or a foothold on the platforms, and, since the adoption of the plan requiring payment on entering, the omnibuses do the same thing. Nothing is more common now than for stages to crowd 14, 15 or 16 into room designed for 12. If our City Government keeps up the sham of pretending to regulate the public conveyances, it should give some attention to this matter.

A MONSTROUS OMNIBUS.—They have a mammoth omnibus in France, at the small town of Cavaillon (Vaucluse), whose origin is rather singular. The proprietor of an extensive silk-spinning mill in that place has about eighty women and young girls in his employ, most of whom belong to the villages surrounding, and are accustomed to spend the Sabbath at home. Heretofore, that they might do so, they were obliged to start on Saturday evening and walk from three to twelve miles, and return on Sunday evening more fatigued than by a hard day's work. In order to remedy this inconvenience, their employer had this ponderous vehicle constructed, with two rows of seats, one over the other, capable of carrying about sixty passengers. When the mill is closed on Saturday evening, four strong horses are harnessed to it, in which the females are conveyed to their respective villages, and on Sunday evening the same omnibus calls for and conveys the operatives back again to Cavaillon.



For the New York Coach-Maker's Magazine.

SCALE DRAFTING, AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, OF BRIDGEPORT, CONN.

Continued from page 98.

LESSON SECOND.

WITH the understanding that you have practiced sufficiently with the pen to enable you to commence inking your pencil sketch, we will now proceed by mixing our ink as described in Lesson I., then with your small compass pen describe the hubs of the wheels as represented in the diagram. In all cases of carriage drafting, ink the wheels first, as they are outside of all and nearest the vision. Now you have the hubs inked, get your large compass pen and describe the circumference of the wheels, leaving the outside line the heaviest. Having done that, you can divide the circumference of the wheel into any number of spokes desired. Then, with a straight edge, draw two fine lines, to represent the spokes, from the points in the circumference of the wheel to the hub, keeping the centre of the hub for your guide. Having the wheels done, you can now commence inking your body lines, and be sure and don't cross any of the double lines you have made for the wheels. When you have inked all the lines necessary to complete your draft, with a piece of india-rubber rub out all traces of the lead pencil, and commence shading, which is done by dipping your hair pencil in the ink, and adding water until it comes at the shade required. In miniature drafting, I think it best to shade all parts deep that are to be painted black, and shade lightly all colored parts. It looks far better than too deep a shading all through. Ornamental work is better done by the lead pencil than with the pen. To make ornamental work done with the pencil as durable as with ink, get a clean camel-hair pencil and a drop of milk, and give it a light brush over, and when dry it cannot be erased.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME AND ABROAD.

AMERICAN PATENTED INVENTIONS.

September 14. MODE OF PREVENTING NUTS FROM UNSCREWING.—S. Noblet, of Halifax, Pa.: I claim preventing bolt-heads or nuts from turning, by inserting below them a flexible metallic washer, one end of which is turned against the head or nut, and the other held immovable in place, substantially as described and represented.

September 21. SELF-ACTING WAGON BRAKE.—A. Larrowe, of Cohocton, N. Y.: I am aware that self-acting brakes, having a wedge-shaped rubber for self-tightening on the forward motion of the wagon, and self-releasing on the backward motion, are not new; such, therefore, I do not claim.

But I claim constructing the rubbers, with the flanges on each side, operating loosely in grooves in bar, B, and resting on

springs, h, for allowing the rubber to rise upon an inclined plane, and relieve the friction of the wheels when backing the wagon, and for replacing the rubbers, the whole operating as described, and for the purposes set forth.

September 28. Ambulance Wagon.—Israel Moses, of New York City: I am aware that several devices have been employed in emigrant wagons, traveling-carriages, and other vehicles of a similar nature, to enable them to afford shelter, and to perform, in some degree, the part of a domicile. But the necessity of reducing everything in an army, deemed of extraneous character, to the mere purposes of combat, has heretofore caused ambulances to be constructed in the simplest manner possible, with perfect disregard of comfort to the sick, and of convenience to the attendants.

My improvement is intended to overcome these objections, by combining in one vehicle not only the means of transport and protection to the sick and wounded, but the surgeon's office and stores, as well as a hospital camp.

Therefore, I do not claim any of the devices employed by me, separately and irrespectively of their peculiar construction and arrangement.

But I claim an army ambulance, constructed and arranged as described, that is to say, having ability to transport the sick and wounded under cover, either lying or sitting, by means of a system of sectional folding seats, arranged along the sides, as described, as also for carrying the surgeon's medicines and implements in removable cases, fitting in and under said seats, and arranged in drawers under the body of the vehicle, so that said cases may be used for general or detached service, as required; and also the arrangement of an adjustable door, capable of serving as a table, as set forth; together with the arrangement described of the hammock, for one, two, or more persons; and, finally, in combining with the vehicle, as a central support, the tent necessary for the hospital camp, the whole being combined and operating as a connected device for transporting, subsisting, and protecting the sick and wounded of an army, and their appropriate attendants, as set forth.

October 5. Wear-Iron for Carriages.—I. George Lefler, of Philadelphia, Pa. Dated September 8th, 1857: Disclaiming the formation of "goose-necks," or recesses in the bodies of vehicles, and disclaiming the use of metallic guards, or "wear-irons"—

I claim, without limiting myself to any precise form or exact proportion, the construction of carriage, or other bodies, with a metallic recessed guard, constructed and arranged in the body of the vehicle, substantially as described, for the purpose set forth.

LATE EUROPEAN PATENTED INVENTIONS.

Price Griffiths, engineer, Manchester Road, Burnley, Lancashire—improvements in the manufacture of shaft couplings.

William Capstick, Liverpool—improvements in wheels for carts or vehicles to run on common roads.

Thomas Riddell, Carracon Terrace, Old Ford, Bow—improvements in the construction of omnibuses, and in brakes, to be applied to such, and other wheel carriages.

Paul R. Hodge, 16 Chalcot Crescent, Regent's Park, and George Spencer, 6 Cannon Street West—improvements in the means of preventing or regulating the recoil of springs used in railway engines, carriages, and station buffers.

Dudley Le Souëf, Twickenham—an improved shaft-bearer or tug, and an improved manner of affixing the same to the harness.

CARRIAGE WHEELS.—The proprietor of a Spoke Factory in the vicinity of New York City is desirous of connecting a WHEEL FACTORY with his present business, and will furnish Room, Power and Spokes for that purpose, taking ready-made Wheels in payment. The location is right for doing an extensive trade in Wheels, and, to a person qualified to manufacture a superior article, the opening will prove advantageous. Address Box No. 219, Post Office, Newark, N. J.

The Humorists' Column.

"A little nonsense, now and then,
Is relished by the best of men."

Bemus, a spruce young man from the city, was riding out into the country a few days since, with his "gal," and, as the sun was hot, he stopped under the shade of a tree to let his horse breathe. The "skeeters" were very thick, and Bemus, thinking to have a little fun, called to a farmer at work in a field: "Hallo, sir, what do you feed your mosquitoes on?" "We feed 'em here on *little* city fellers and hosses." Bemus whipped up.

The following notice, says the Salem *Gazette*, may be seen on a blacksmith's shop, in the town of Essex: "No Horses Shod on Sunday except sickness and death."

A poor son of the Emerald Isle applied for employment to an avaricious hunks, who told him he employed no Irishmen: "For the last one died on my hands, and I was forced to bury him at my own charge." "Ah, your honor," said Pat, brightening up, "an' is that all? Then you'd give me the place: for sure I can get a certificate that I never died in the employ of any master I iver served."

An English paper, speaking of the American light pleasure-wagon, says that the wheels consist of four circles of cheese-rinds, filled in with spider-webs.

When Dr. H. and Sergeant A. were walking arm-in-arm, a wag observed to a friend: "Those two are just equal to one highwayman." "Why so?" was the response. "Because," rejoined the wag, "it's a lawyer and a doctor—your money or your life."

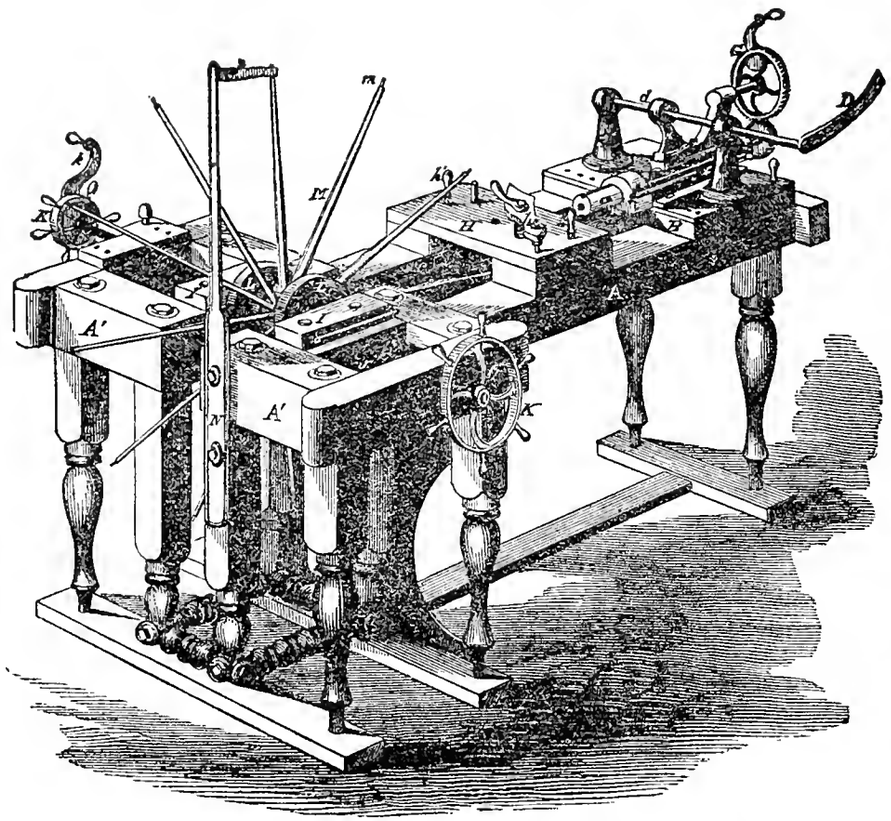
"See there!" exclaimed a returned Irish soldier to a gaping crowd, as he exhibited with some pride his tall hat with a bullet hole in it. "Look at that hole, will you? You see that if it had been a low-crowned hat I should have been killed outright!"

"Well, Pat, Jimmy didn't quite kill you with a brick-bat, did he?" "No, but I wish he had." "What for?" "So I could have seen him hung, the villain!"

Two persons of a satiric turn met a neighbor, and said: "Friend, we have been disputing whether you are most knave or fool." The man took each of the querists by the arm, so that he was in the middle. "Troth," said he; "I believe I am between both."

It is evident, at least to common minds, that when a man buys a one-hundred-dollar handkerchief for a "duck of a wife" he may be very aptly termed "a goose of a husband."

"So there's another rupture of Mount Vociferous," said Mrs. Partington, as she put up her specs; "the paper tells us about the burning lather running down the mountain, but it don't tell us how it got afire."



THE GUARD WHEEL MACHINE.

THIS machine combines within itself all the parts requisite for the putting together and fitting into their proper places, true and exact, all the different portions of a carriage wheel, and the operation is very simple. It is intended to be worked by hand, although it can be operated by power, if necessary, or should there be power already in the shop where it is fixed. Our engraving is a perspective view, and from our description of the operation of the machine will be thoroughly understood.

A is a frame combined with the two frames A'. Each of the frames A' has a block, L, that can slide along it, and carry face plates, L; through these blocks and face plates pass screws, J, which are operated by the hand wheels, K, or by the crank, *k*, which is on one of them. Between these face plates, L, with the screws passing into the centre of the hub, the hub is placed and screwed up firm and secure.

On the frame, A, is a block, B, which can be moved to any position on the frame, and held there by a bolt and nut; from a plate on this block rise two pillars, C, that serve as journals for the axle, *d*, to which is attached a long lever, D, and this axle also carries a small segment, E; a tool-holder, F, is free to be rotated through the journal, *f*, by the handle and gear, G, or to be moved back and forth only by the motion of the lever D. The first operation is, of course, boring and mortising the hubs, which is performed by putting an augur into F, and letting the lever, D, by its own weight, give it the necessary feed; the handle, G, is then rotated, and a hole is bored in the hub. The distance which the holes are to be apart is regulated, so that each is an equal distance apart, by a stop on one of the face plates, L.

The boring being complete, the augur is removed, and a mortising chisel put in its place. F is prevented from rotating, but allowed to slide, and the mortising motion is given to the tool by means of the lever, D, and segment, E, and the hub is fed to the chisel by the large wheel, K, which pushes the hub, face plates, and blocks, I, along, or draws them back when the nut of the other screw is removed. Both the screws, J, being now put in gear, the hub is placed in its proper position, and the spokes taken and driven in; they are adjusted, and have the necessary *dish* given them by means of the guide, *n*, which is supported by the bar, N, from the frame. We should also state that the bevel of the mortise is adjusted by moving the plate from which C rises on B until the right angle is obtained, and then fastening it by a peg. The spokes, M, being now all driven home, a hollow augur is fitted into F, and a clutch or support for the spoke placed on A, and by rotating the handle, G, the tenon, *m*, is cut on the end of the spoke; when these are all cut, the wheel is removed, and the piece, H, is placed on the frame, E. This piece, H, admits of the felly being correctly bored: by means of the clutch, *h*, and the handles, *h'*, it is held quite secure and firm during the boring. The hub can be bored for the axle box, by fitting a small tool on the screw, J, and passing it inside, and rotating it by means of the handle, *k*. We have seen the hubs bored and mortised, the spokes driven in and tenoned and the fellies bored, of three sets of wheels, or six large wheels and six small ones, in between six and seven hours, by one man, in one of these machines. An extra piece can be supplied, so that they will be applicable for any kind of mortising, and with little trouble one of them can be transformed into a lathe. We believe that it is one of the most useful machines for carriage builders and wheelwrights ever yet produced.

It is the invention of C. H. Guard, of Troy, N. Y., and was patented by him October 20th, 1857. Any further particulars can be obtained by addressing him as above, or S. C. Hills, No. 12 Platt st., New York. A machine can be seen in operation at Messrs. Brewster & Co.'s extensive carriage manufactory, Nos. 372 and 374 Broome st., New York.

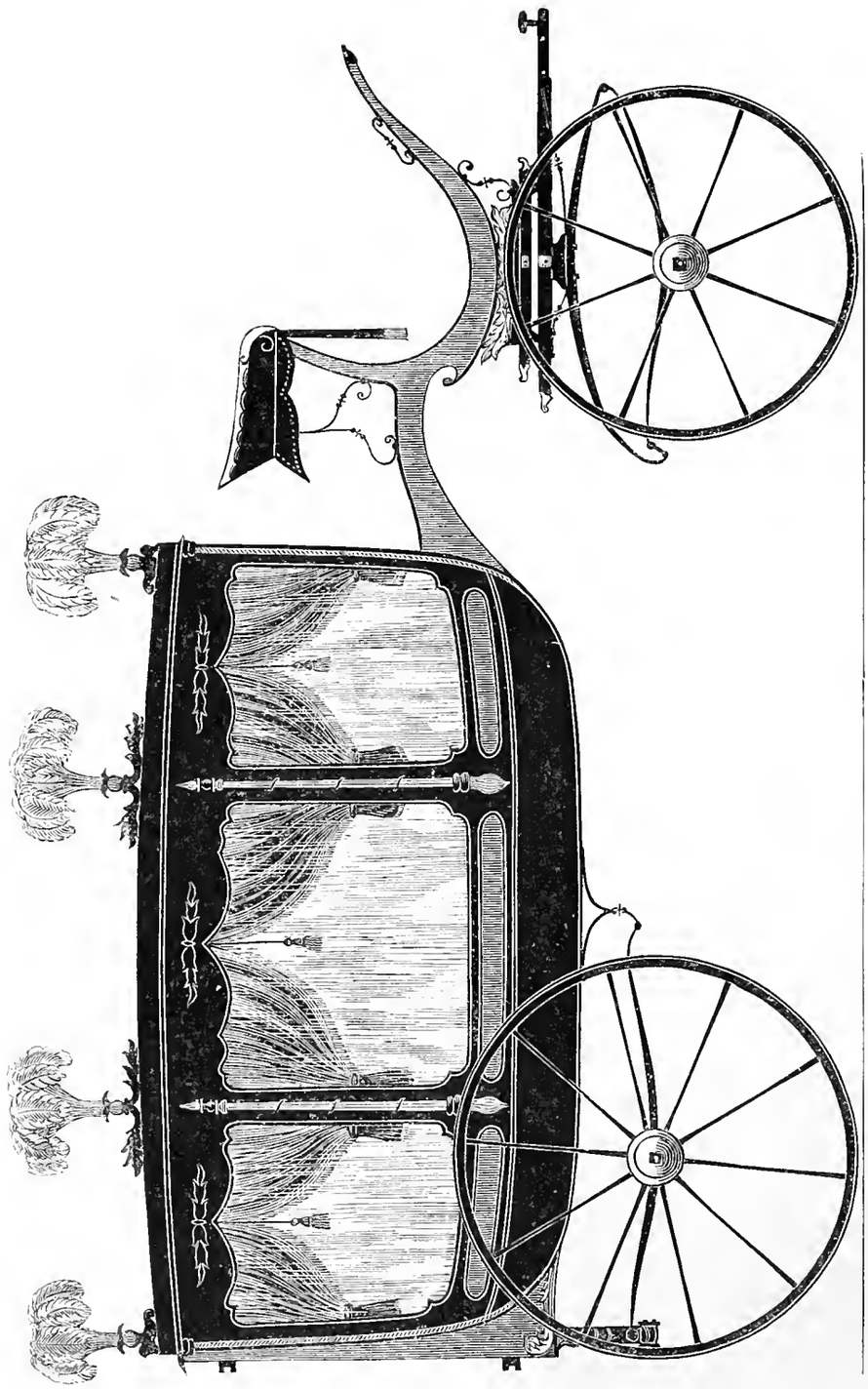
As Mr. Guard is the originator of the principle of putting wheels together entire without changing the location of the hub, which principle he has fully secured to himself in his letters patent, and as he has not and will not sell any Territory (excepting shop rights), any person using any machine embracing the principle, unless purchased of him or his agents, will be dealt with as the law provides.

"NEW YORK, April 20, 1858.

"C. H. GUARD: *Dear Sir*—After giving your wheel machine a thoroughly practical trial, we are convinced that we can make a wheel much superior to those made solely by hand, and at a great saving of cost.

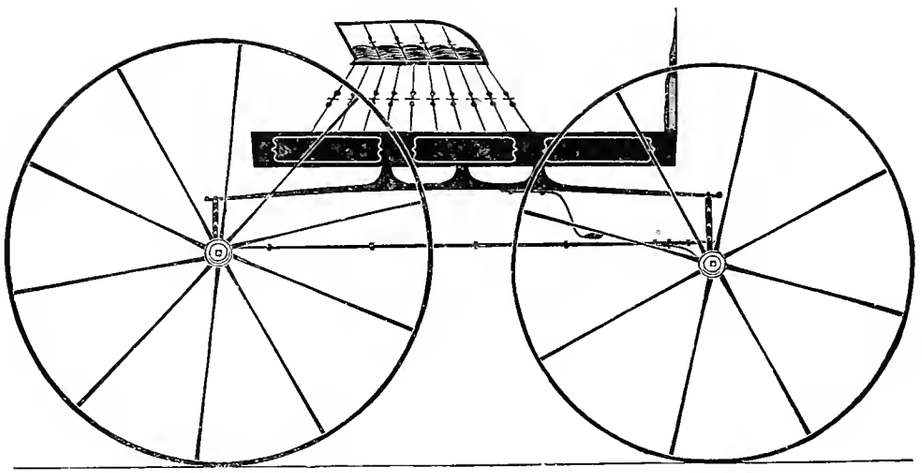
"BREWSTER & CO., 372 and 374 Broome st."

Messrs. Dusenbury & Van Duzer, who have made a great many wheels on this Machine, and Messrs. Miner & Stevens, who have one in their factory, speak in high terms of Mr. Guard's Machine.



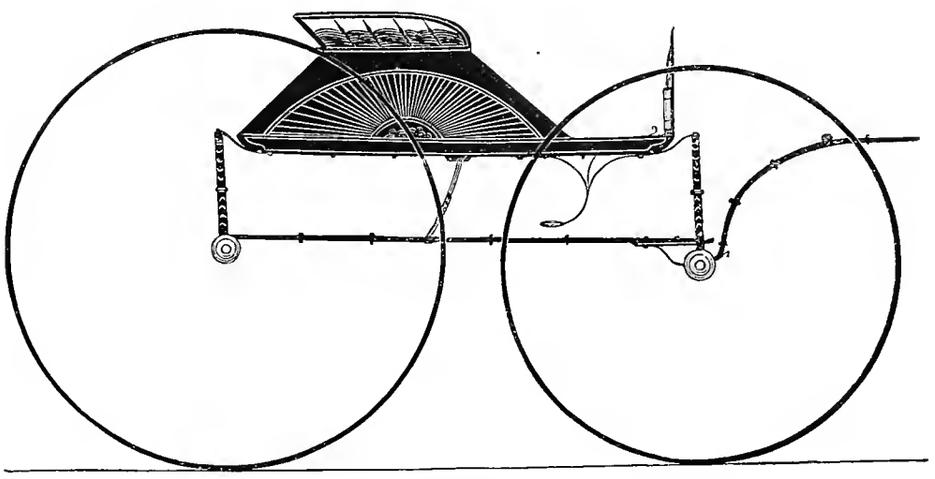
THE ALBANY HEARSE.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 130.



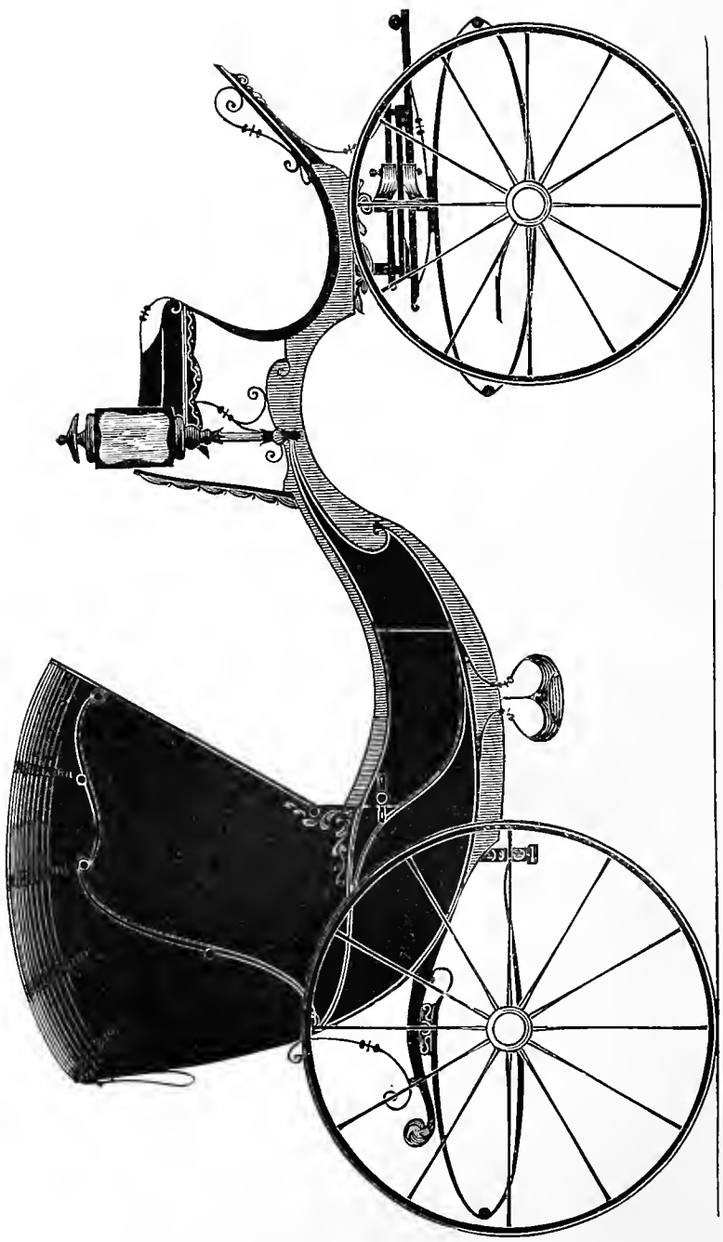
TROTTING BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 130.



DALZELL BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach Maker's Magazine.—Explained on page 131



PICCOLOMINI CALECHE.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 131.

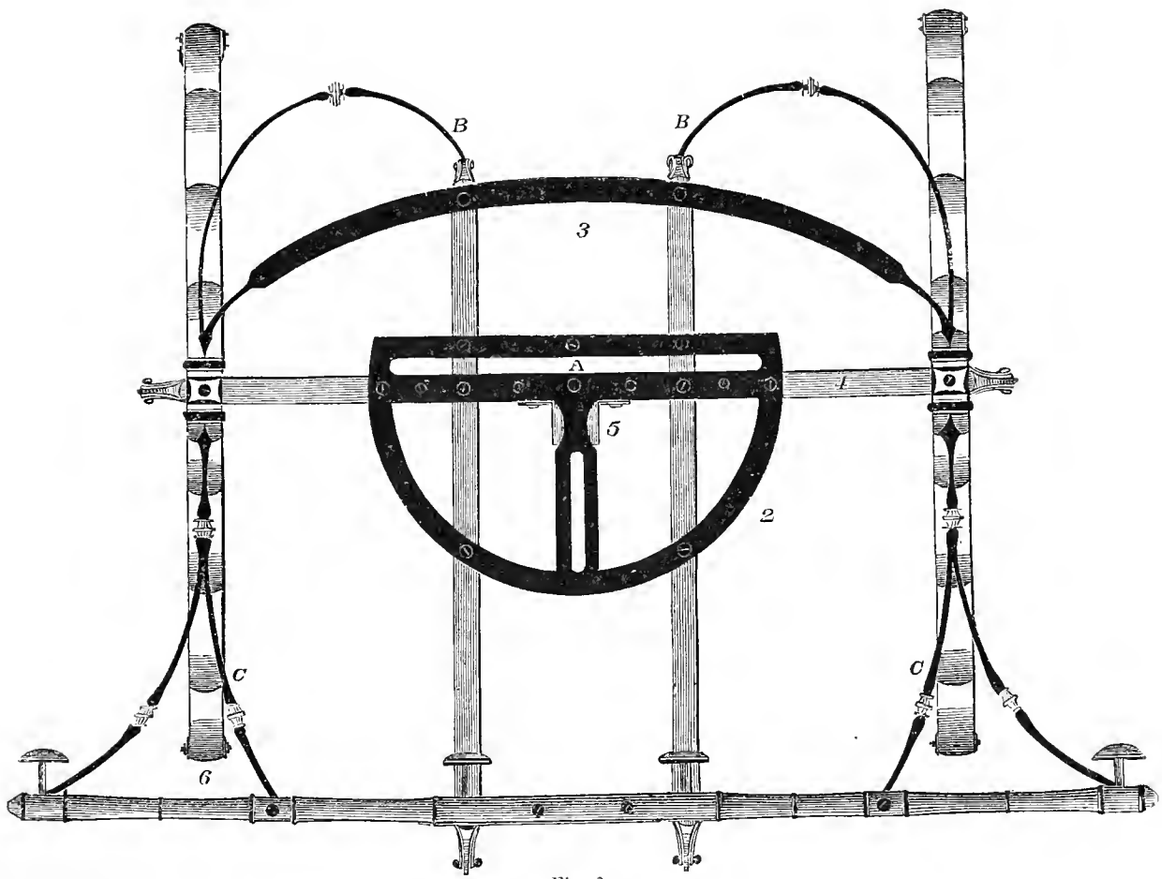


Fig. 2.

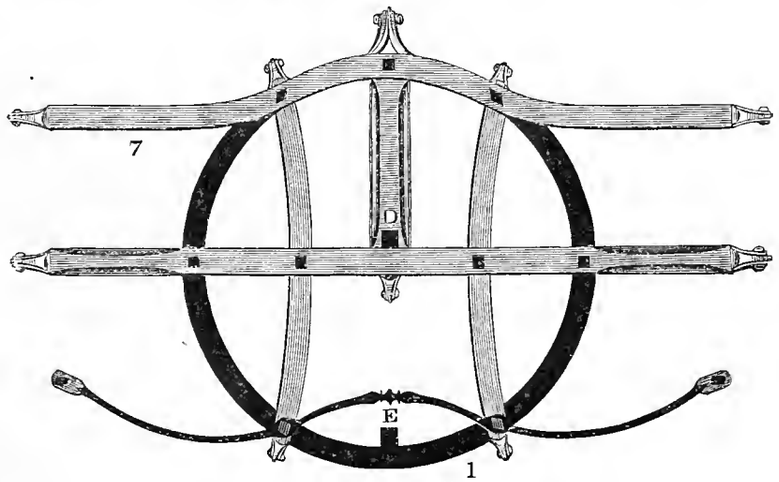


Fig. 1.

SECTIONAL ELLIPSIS CARRIAGE-PART.—$\frac{1}{2}$ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.

Explained on page 131.

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, DECEMBER, 1858. No. 7.

For the New York Coach-Maker's Magazine.

THE JOKER OUTWITTED.

BY JAMES SCOTT.

I HAVE heard and read of many practical jokers, queer geniuses too, some of them, but Bill Brush was the most inveterate, and, at the same time, the most successful one, I ever knew personally. Joking was his hobby, or, rather, a sort of idiosyncrasy, to which all other habits, tastes, and inclinations which he possessed were, in a great measure, subservient. Had he devoted half the study to his legitimate occupation—carriage painting—that he did in concocting and carrying out schemes to "sell" the unwary, he would, no doubt, have been a star painter, instead of a second-rate dauber—a consideration which, by the way, might be profitably applied to the cases of several geniuses of my acquaintance; but, *de gustibus non est disputandum*. Being utterly unscrupulous as to the means employed, and having no respect for persons in the selection of victims, it is not surprising that this peculiar kind of amusement got him into some ugly scrapes, several of which terminated in boot applications and pugilistic demonstrations of a sanguinary character, Bill always coming off with the outlines of his countenance sadly marred, and in a state of complete physical dilapidation. One might naturally suppose that these *little* drawbacks would teach him caution, if not total forbearance; but no, he was too thoroughly devoted to this strange passion to be cured by aught but some powerful remedy. His disease was chronic in its nature, but there were those who knew how to treat it, and were busily preparing a dose for him which—but I am anticipating.

He was the only journeyman painter employed in the shop. For assistants he had a couple of boys, of that interesting age when youngsters first begin to feel a hankering after calico, and talk largely of the enormous expense incident on two weekly visits to the barber's shop. Bob and Ike, the aforesaid boys, were most bitter, uncompromising enemies of Bill Brush, against whom they were compelled, in self-defense, to wage constant war, for he gave them no rest—no peace. Not a day passed but saw one, or both of them, the victims of some bamboozling operation, much to the merriment of the balance of the hands and the triumphant exultation of their persecutor. They often attempted to retaliate in the same manner, but seldom succeeded, owing to the fact that they did not sufficiently study and mature their plans before carrying them into execution. This remission, considering the master-spirit they had to deal with, was a sad oversight, but one which they finally discovered, and took measures to obviate. It became evident to them that, in order to insure success, they must plot—must form plans understood by both, and must hit upon some ingenious combination of circumstances which would effectually draw the wool over the eyes of their ever-vigilant antagonist, and *then*, when off his guard, open out on him with some well-devised and carefully-arranged contrivance which would expose him to the ridicule of the whole shop. "Beat him badly *once*," they argued, "and we can do it again; besides, it will take the conceit out of him to be overreached at his own game. At all events, we will try." Such was the conclusion they arrived at, after an evening spent in consultation, and they mutually agreed thenceforth to devote their minds and energies to the discomfiture of the great joker.

It was one of those cool mornings—too cool to be comfortable—which often occur in early autumn. Bill, on arriving at the shop, gave orders to put up the stove, and sent the youngsters to bring it from the shed, where it had been stowed away in the spring. As they were ascending the stairway on their return, it became evident that they had quarreled, for loud and threatening language was freely exchanged between them. The "boss" painter was surprised, as he had never known them to fall out before.

"Don't you tell me again that I stole Mrs. Bricktop's water-melons, or I'll warm your ear for you!" exclaimed Ike, vehemently, as they deposited the stove on the floor.

"Takes a bigger feller than you to do that, you swell-head, you!" retorted Bob, defiantly.

"*Swell-head*, eh! I'll swell *your* head."

"You can't do it, hoss, nary time!"

Like gladiators—I mean Bowery Boys—rushing to the combat, they charged upon each other. Bill dropped the stove-pipe, and sprang between them, just in time to prevent a collision. Seizing one with each hand, he commenced to reason the case with them; but to little purpose.

"Let me go!" yelled Ike, struggling to release himself.

"Take *that!*" screamed Bob, aiming a furious kick at him.

The aim, however, was not true, for, by some means, it took effect on a very sensitive part of one of Brush's organs of locomotion. Quick as lightning he released the boys, and, clutching the wounded member in his hand, he hopped around the shop, groaning and squirming in an agony of pain. There was a rush—a scuffle, and *co-whollop!* the infuriated combatants came to the floor. Again the now crippled mediator flew to prevent the strife. But alas! in his eagerness to prevent bloodshed, he unwittingly caused it. Three hops and a jump had he advanced, when crash! he went over the stove, up went his heels and down came his head—*nose undermost*—to which circumstance he probably owed the preservation of his skull, for the aforesaid nose was completely sm—but spare me the harrowing details. Suffice it to say that, when he gathered himself up, it looked a good deal like a small-sized head of red cabbage.

Simultaneously with this terrible catastrophe, the proprietor of the establishment, attracted by the noise, came running into the shop, and started back aghast at the ferocious appearance of matters and things.

"What does all this mean, Mr. Brush?" he at length inquired. "Are you drunk, sir, or crazy? Fighting with the boys, too—you ought to be ashamed, a man of your age engaged in this disgraceful manner!"

"I aint drunk!" replied the painter, spitting out the blood that descended from his battered organ of smell; "nor I aint been a fight—"

"There, there, that will do! Don't add falsehood to your folly! Remember, sir, I will have no more of this in *my* shop!" And the old man bounced indignantly out.

"Well, now, if this here aint a piling things on a little *too* steep!" whined Brush. "Here, I've been most murdered a tryin' to stop a fight, and now, I'm not only blamed for fightin' myself, but he says I'm *drunk*. Now, see here, if you fellers ever—" But the *fellers* were gone—they had slipped out while the boss was lecturing Bill. "Confound them cubs! This here's all owin' to them; but I'll pay them off! See if I don't!"

The mutilated proboscis was plastered up—the belligerent youngsters received a severe "talking to," which only drew from them sullen, threatening mutterings. All through the forenoon, they looked the wickedest kind of daggers at each other, and, several times, Brush thought he detected symptoms of a fresh outbreak. This, when he thought of the vindictive fury which characterized the fight of the morning, made him nervous and awfully uneasy. Noon, however, arrived without any further demonstration, and he, with commendable caution, determined to remain in the shop until they had gone to dinner, in order to prevent them from being alone, and renewing the quarrel. For the same reason he hurried back just as soon as he had swallowed his "grub." It lacked, perhaps, a quarter of one o'clock when he returned, and many of the "hands" were lounging around, waiting for the bell to call them to work. Some of them attempted to detain him, and commenced joking about the warlike appearance of his nose; but, contrary to his wont, when attacked in this way, he made no reply, other than an expressive shake of his head, as he hurried up stairs. They were beginning to speculate on this sudden change in his manner, when a terrific yell from the paint-shop thrilled through every heart.

"Murder! murder! come up here, men, for mercy's sake! Oh, be quick! They're dead I *do* believe! Oh-o-o!"

Pell-mell they flew up stairs. At the open door of the shop stood Bill, his face pale as that of the dead—eyes fixed and full of horror—hair bristling like the mane of a wild boar—one hand nervously clutching the door-latch for support, and the other pointing into the room. The door was soon gained by the excited crowd, when a scene of frightful violence met their gaze. Near the centre of the floor lay the form of Bob, stiff and bloody, his right hand still grasping an ensanguined knife. Further on, the body of Ike was seen in a half-recumbent position, and presenting the same horrible appearance. Near him lay a hatchet, red from edge to handle. Paint-pots, brushes, buckets, stools, and boxes were scattered around in the wildest confusion, giving evidence of a terrible struggle. For a few moments the spectators stood horror-struck and speechless, when some one at length found a voice, and, in imploring accents, cried:

"Do, some of you, run for a doctor!"

"Yes, yes! some of you run for a doctor!" repeated Bill, recovering himself; "and be quick about it; perhaps they aint both dead yet. Let's raise up Bob; poor feller, who'd a thought he'd ever come to this, he was allers so peaceful and quiet. This is *awful!* Easy, now, don't hurt him!"

Tenderly did the sorrowing joker take the boy by the shoulders, and raised his head from the floor, and gently was he placing it on a pile of buggy cushions, when, to his unutterable consternation and surprise, the gory lips parted, and, in triumphant tone, exclaimed—"*sold!*"

At the same instant, the body of Ike, in the most singular manner, commenced rolling around the floor, giving vent to wild and uproarious peals of laughter.

With mouth stretched to its widest extent, and protruding, wondering eyes, Brush looked first at one, and then at the other. He rubbed his forehead vacantly, and silently turned to the crowd, as if seeking an explanation. A perfect roar of merriment was the only response. Sides shook, vest buttons flew, and cries of *sold! sold!* resounded from every side. Again he turned to the boys, and then the truth suddenly flashed upon him—he had been fooled—was victimized—the whole thing—quarrel, fight, murder, blood, hatchet, and knife—was a joke—a "sell" gotten up expressly for his benefit. He saw it clearly enough *now*—he was able to trace the whole plot from the beginning. The tables were completely turned on him—he, the prince of jokers, was *beat* at his own game. He would be laughed at by every one—would be derided, pointed at in the street, and his defeat would be gloried in by his enemies. The reaction, occasioned by the consciousness of the full extent of his discomfiture, was too much for him, and he *fainted*. A cold bath, in the shape of a bucket of water dashed in his face, soon restored animation. The scattered utensils were restored to their places, and the lately defunct apprentices were busily removing the blood (rose-pink mixed with water) from their hands and faces when he reopened his eyes. With a ghastly smile, he inquired for his hat. It was given to him, when he slowly and languidly advanced to the grinning boys, and, throwing it at their feet, left the shop bare-headed. The action spoke volumes, and was greeted with loud applause.

For a time, Bill bravely breasted the storm of ridicule which assailed him from every quarter; but, so violent did it become, he was forced to retreat. Remembering that he had an aunt living "Out West," who had urgently invited him to visit her, he went, glad of even this shadow of an excuse for leaving the scene of his downfall. In some six months he returned an altered man—a man who repudiated joking, and practiced gravity and dignity of deportment.

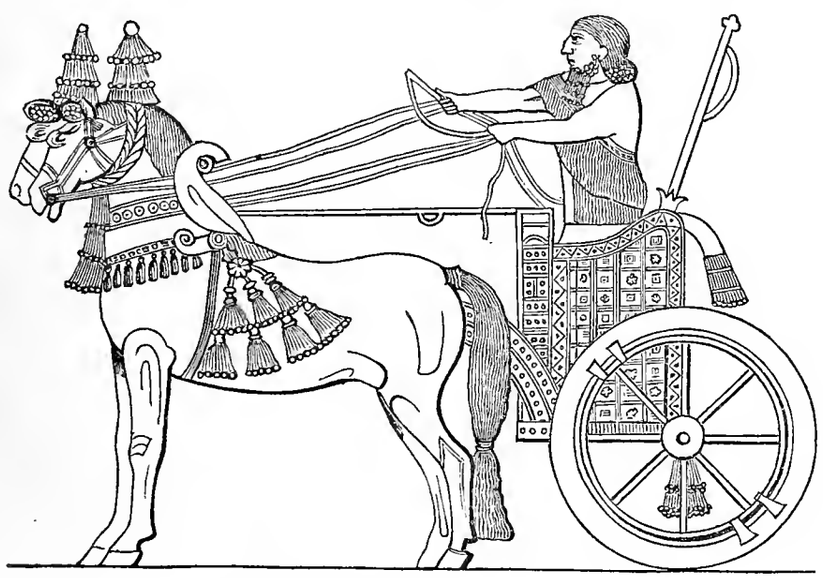
COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

Usus uni rei deditus et naturam et artem sæpe vincit.
CICERO.

CHAPTER VII.

The possession of war-chariots added greatly to the power and efficiency of ancient nations—Memnon with chariots at the siege of Troy—Later improvements pointed out in the Assyrian chariot—The manner of harnessing horses among the Assyrians—Homer's allusions to the chariot highly poetical, with examples—Hesiod, a cotemporary, also describes them—The different employments of them among the Scythians, Elamites, etc.—Chariot cities—Immense slaughter of charioteers on one occasion by the Israelitish armies.

SOME have conjectured that Egypt and Assyria had both derived a knowledge of the arts from some nation of antiquity. Among these is Layard. This is possible; but as relates to one branch of the arts, we are disposed to think, as before stated, that chariot-making took its rise in Egypt, and, afterwards, in less skillful hands, was imitated at Nineveh and Babylon. In one thing we are certain, that, as with



ASSYRIAN CHARIOT OF A LATER DATE.

the Egyptians so with the Assyrians, a great proportion of the strength of their armies consisted in chariots. It is said by Plato (*De Legibus*, lib. III.), that the Assyrians sent 200 chariots and 20,000 men, under the generalship of Memnon, to assist the Trojans in defending their city against the assaults of the Greeks, of which Troy is allowed by ancient writers to have been a dependency. At the time alluded to, the Assyrians had made considerable improvement in their chariots, which we will now endeavor to point out. The large ornamental frame-work, extending from the front part of the chariot to the end of the pole, was replaced by a thin rod, as represented in the accompanying illustration, or by a rope or leather thong knotted in the centre or near the end, as in other examples. The body of the chariot designates the march of civilization, in its being made more graceful in form, although in the hanging up little progress appears to have been made. The pole, as remarked in our last article, no longer terminated in the head of a swan or a ball, and, judging from the sculptures, they were of an entirely different form. The wheels were much higher, being about five feet high. The upper portion of the body was not rounded, but more nearly square, with a projection in front, which it is conjectured may have been used for arrows, as no quivers are shown on the sides, as in the old Nimrod bas-reliefs. The panels appear to have been elaborately carved and adorned with rosettes and tassels. Instead of six, the wheels were furnished with eight spokes, and strengthened at the felloe-joints by four plates of metal. These later examples appear to have been completely covered with ornaments—some having an elegant moulding or border round the sides. They were, probably, inlaid with gold, silver, and costly woods, and also painted like some of the examples taken by the Egyptians in Mesopotamia fifteen centuries before Christ, and recorded in the statistical tablet of Karnak, where are mentioned "thirty chariots worked with gold and silver, and painted poles," brought from that conquered nation.* Only two horses were used in the Assyrian chariots, in this differing from the Egyptians. From a passage in the Scriptures (Zechariah vi., 2), it would seem that these horses were paired according to their colors, a taste which their descendants have followed down to our time. Chariots with scythes have not been found illustrated on any sculptures yet exhumed at Babylon or Nineveh, although mentioned by Ctesias as being in the army of Ninus.

The trappings and harness of the horses at this later period differed very much from those of an earlier date. Three elegant and high plumes, rising one above the other, waved above the horses' heads, an arched crest and clusters of tassels were placed across the forehead, falling nearly to the eyes, and the harness attached to the yoke was more profusely ornamented with rosettes and fringes, in a more plain and simple manner than formerly. In the earlier examples, as we have seen, the tails of the horses are simply bound in the centre with ribbons—in the latter the end is plaited, as in the Persian fashion represented in the Persopolitan sculptures, and on the early tombs from Xanthus. The horses, as with us, were guided by two reins, and the driver carried a whip, which, like the Egyptian, consisted of a simple thong attached to a loop at the end of a short handle.

Without entering further into details, which, we fear, our minuteness, as regards Egypt and Assyria, may have tried the reader with already, we will now examine into the history of the chariot, as found among other nations.

The pages of Homer are crowded with mention of the chariot, and the poetical descriptions given in the Iliad furnish matter for some of the most beautiful passages found therein. In fact, such an influence has his pages had on his successors, that other votaries of the Muses have gone over the same subject, with more or less of varied interest and success. His summing up will present the following points: that the felloes of chariot wheels, in Homer's day, were manufactured from the poplar. In the fourth book of the Iliad is the following passage: "He [Simoisius] fell on the ground in the dust, like a poplar, which has sprung up in the moist grass-land of an extensive marsh—branches grow smooth yet upon the very top, which the chariot-maker lops with the shining steel, that he might bend [it as] a felloe for a shining chariot."

* The chariots and horses of Naharaina (Mesopotamia) are mentioned in an Egyptian monument of the Eighteenth Dynasty. An officer of Thotmes I. "captured for him, in the land of Naharaina, twenty-one hands, a horse and a chariot." (*Birch's Memoir on the Statistical Tablet of Karnak*, p. 8.)

That the axle of the chariot mentioned in the fifth book of the Iliad was made of beech: "The beechen axle groaned under the weight of a dreadful goddess and a very great hero."

That two horses were employed, "fed on lotus, lake-fed-parsley, white barley, and oats."

That so choicely were they esteemed, that at rest the horses were unhitched, the chariot taken into the tent, and covered up "with a covering."

That they were used on funeral occasions, at sacrifices in honor of the gods, and, in the richness of a poetical spirit, the Mantuan bard tells us, "the Houris unyoked [for Juno and Minerva] the fair-maned steeds, and bound them to ambrosial mangers; *but they tilted the chariots against the splendid walls.*" The old poet did not entertain a low opinion of the chariot, by any means, for he has placed the immortal Jove, his erratic wife Juno, and other deities, of lesser fame, therein, who have driven to war in the most pompous manner.

The following description of Juno's chariot, in the fifth book of the Iliad, is too beautiful to omit in this connection. A very literal translation is subjoined: "Juno, venerable goddess, daughter of mighty Saturn, quickly moving, harnessed her gold-caparisoned steeds; but Hebe [the daughter of Jupiter and Juno, and afterwards the wife of the world-renowned Hercules] speedily applied to the chariot, and to the iron axletree on both sides, the curved wheels golden, with eight spokes. Of these, indeed, the felloe is of gold, imperishable; but above [are] brazen ties fastened on them, wonderful to be seen; but the circular naves on both sides are of silver, and the body [or, more properly translated, seat] was stretched on with gold and silver thongs [there was a double circular rim]; from this projected a silver pole; at its extremity she bound the golden beauteous yoke, and to it attached the beautiful golden collars. But Juno, longing for conquest and battle, led the swift-footed steeds under the yoke." The imaginary gaudiness of the poet was, no doubt, suggested by chariots of superior workmanship, and one can but feel that the use of the iron-axle at such an early age is proof that art was on the advance.

Homer's cotemporary, Hesiod, has minutely described a chariot, as delineated by Vulcan on the shield of Hercules, who, if history is correct, was wheelwright in particular, and blacksmith in general, to the mighty Jupiter, who, in a passion, one day, kicked him out of the heavens, and made the sooty artisan, in his fall, a cripple for life. Very few of the poets have failed to refer, in some way, to the chariot, and we have no doubt but that among the nations of antiquity, as in our day, vehicles, such as chariots, wagons, curricles, and carts, were in very common use, both for pleasure, business and war, by the most civilized nations.

Among the ancient Scythians the chariot was very extensively used, not only in war but for other purposes. This rude people used wagons as dwellings (*Herodotus*, Melp. 4, 47), and in sacrifices, to which oxen were yoked. But perhaps nothing in this connection is more singular than the uses to which this barbarous nation applied the half wheels of vehicles, at the sacrifices in honor of the memory of kings, which is too cruel for our recital, but which the curious reader may find in the pages of Herodotus.

The Elamites, tributaries to the Assyrians, were celebrated for their chariots carrying archès (Isa. xxvi., 2).

Chariot cities, or cities for the support of warriors fighting in chariots, are frequently mentioned in the Bible, as at Chron. i., 14, and viii., 6. According to the Mosaic law, David could not possess chariots—nor put his trust in them—yet when the Ammonites and Syrians (Chron. xix., 7; 2 Sam. x., 18), after their disgraceful conduct towards his pacific messengers, had come out in battle against him, with their thirty-two thousand chariots, hired out of Mesopotamia, he slew, according to the sacred historian, seven thousand men, "which fought in chariots," showing that at this period chariots were in very common use among various nations.

For the New York Coach-maker's Magazine.

SPRINGING OF TIMBER.

"Like crooked men, that warp and spring and bend,
Will timber spring and warp, from end to end.
The senseless timber springs from natural laws;
Illustrious knaves will spring without a cause.
But crooked timber, crooked tongues and spars,
And plank and deal, that warp and twist, and bars
May straightened be. But crooked hearts and heads
Cling to a crooked way, where'er it leads."—EDWARDS.

ALMOST all kinds of timber, and, more especially, firm and elastic timber, when it is split or sawed out of the log, will spring more or less; and some kinds of timber, when getting it out, will spring to such a degree as to be unfit for the purposes for which it was originally intended. If we take a hickory, or white ash, log, and logs of many other kinds of timber, entirely straight, and split them through the middle, the pieces will spring in the shape of a rainbow. If, now, these halves be split, so as to make quarters of the log, the quarters will spring still more than the halves; and, if the quarters be split in the direction of the concentric circles of the log—slab fashion—those pieces will spring still more. Again, if we take off a thick slab from one side of such a log, either by sawing or scoring with axes, that log will spring more or less towards the side from which the slab was taken; and, if a slab of equal thickness be taken from the opposite side the log will, almost always, spring back again and be straight. If a log of very tough and elastic timber be sawed in a saw-mill into plank, boards or anything else, by commencing on one side of the log and continuing to saw from one side only till the log is all sawed up, the first plank that is taken off will usually be a little thicker in the middle than it is at the ends; and the next plank will be a little thicker than the first; and the next still thicker than the second. For this reason we often see plank and scantling much thicker in the middle than at the ends. We often see timber for wagon tongues and scantling for axletrees sawed of as many different sizes as there are pieces, simply because the sawyer did not understand his business; or, if he did understand it, did not take interest enough in his business to perform it in a workmanlike manner. It is not a little trying—yes, exceedingly vexing—to have a log of excellent timber sawed up into stuff of all thicknesses, because the sawyer did not understand how to take advantage of the springing of timber. The most tenacious timber usually will spring the most; and it is no uncommon thing to see a log split at the ends for a foot or two, on account of its inclination to spring. Timber always springs in a certain direction, as has already been shown; and, if one will exercise a little skill and care in sawing out stuff that is greatly inclined to spring, it may be done with all desirable trueness and precision; although every piece may spring badly after it is taken from the carriage.

The CAUSE of springing of timber is attributable to the

contraction of the wood nearest the outside of a log, and to the *expansion* or dilation of the part towards the heart. But what causes this inclination to contract on one side of a stick, and to dilate on the opposite side, is a question which has puzzled the brains of the wisest philosophers of the age. Since, then, we know that timber will spring in a certain direction when it is being sawed out, it is a very feasible and practical operation to saw up a log into almost any kind of stuff, having it of a uniform thickness, or of a true taper, from end to end.

A skillful and experienced sawyer, when sawing up a log, which he is assured will spring badly, will first measure the diameter of it, and make his calculations as to how many cuts there will be in it, allowing always for the saw kerf. He will then square the log; and, afterwards, if the log be sprung at all, will take off the first cut from the concave side. If one cut does not straighten it, take off another. Now, take off a cut from each side alternately, remembering always to cut first from the side that seems to be a little concave. Sometimes small logs may be braced in the middle against some part of the carriage, to prevent its springing.

In sawing a log of tough timber into tongues, for instance, an awkward, unskillful Jonathan will begin and saw the whole log from one side. The consequence would be, the tongues, most of them, would be larger at the middle than at the large end; and, from the last half of the log, he would get a number having ends of full size but middles too small for a tongue. Such work wastes much timber, needlessly, and turns out stuff to the manufacturer which requires a vast amount of unnecessary labor to reduce it to a proper shape.

We take advantage, many times, of the springing of timber in putting axletrees into a carriage. When it is desirable to have an axletree retain its trueness the greatest length of time, the heart side is placed upwards. If the heart side of many pieces of timber be put beneath, the axletree often becomes sprung to such a degree as to be worthless. We can easily discover which is the heart side of a stick, by the concentric circles of the wood.

Spring-bars will retain their shape best and be stronger, by having the heart side downwards and the sap side upwards.

Whippletrees will endure a greater stress and remain straight longer, when the heart side is forward and the sap side of the wood behind. For the same reason, any stick of timber, resting on its ends, and supporting a given weight in the middle, will be stronger and remain straight longer when the heart side is placed upwards.

In making spokes for wheels, every good carriage-maker knows that the grain should run from side to side, and not from the face to the backside of a spoke.

The reason assigned for placing timber in the positions already mentioned is, because it sustains a given stress much better without losing its true form; and, when this is any object, a workman must have some reference or regard to the inclination of his timber to spring when in active service. In my next I shall treat of straightening crooked timber.

S. Edwards Todd.

Lake Ridge, Tompkins Co., N. Y.

For the New York Coach-maker's Magazine.

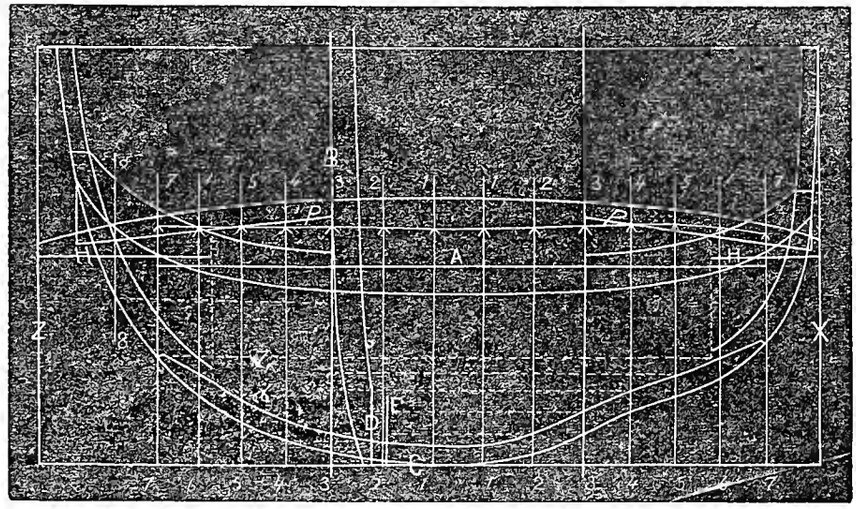
GEOMETRY OF CARRIAGE ARCHITECTURE.

BY A PRACTICAL COACH-MAKER.

PART FIRST.—BODY-MAKING.

Continued from page 108.

In the last article, we left the diagram in a position ready for the square rule. We have reduced the parallelogram, and omitted all lines which are not necessary for our present consideration, in order to leave as clear a field as possible to operate on. In the first place, divide the door-way into, say, five parts, and draw parallel lines from the base line, C, till they intersect all the lines on the kant-board. From the door-line, B, space off the distance to the end of the bottom-side, and draw parallel lines the same as the door-way, numbering them from 1 to 7, each way, from the centre. Now lay your bottom-side in its place on the board, and transfer the cross-lines on to it, by marking



SKELETON ROCKAWAY AND KANT-BOARD—THE LINES OMITTED.

them, top and bottom, with the square from the face side. It would be well for a beginner to number the lines on the bottom-side, to correspond with those on the board. You now draw an imaginary line, as represented by dots in diagram, from line 7 at the point of bottom-side, on a parallel with line C, till it reaches the turn-under line of the pillar. Take your dividers now, and set them to the space at this point, between line B and the turn-under line, and mark it off on the kant-board, on the same line 7, from the small line of body, in towards line A. From this point to line A is the width of the bottom-side at this point. Next take line 6 and proceed in the same manner, by drawing a parallel line with C, from the point where line 6 intersects bottom-line of bottom-side, and take the space of the turn-under on your dividers, and mark it off from the swell line, as in 7; that leaves the width of your bottom-side, at this point. Take line 6, and proceed in like manner till you have all the lines pricked off on the bottom of bottom-side. Then mark off the top of the bottom-sides, in like manner, drawing parallel lines with line C—as represented by dots in the diagram—where the perpendicular lines intersect the top-line of bottom-side, to turn-under line of pillar, and take the space, as heretofore, on your dividers, and mark it off from the small line, and take the remainder for width

of bottom-side on the top. You will perceive—on diagram—I have marked off the shape of the bottom-side underneath, by guide-marks. The next thing to be done is to lay off the corner pillars. First, on the back of the pillar, at the top-rail, mark it the width that is laid down on your kant-board, at the extreme end, which is $1\frac{1}{4}$ inch. Now, to get the width at the arms, draw a perpendicular line from the back end of the arm, down and across the kant-board, as in the diagram at this point. From line H to the small line is the width of the back-pillar at the arm. From these two points, mark with a straight-edge, and set your level from lines X and Z, to the small line, and level your pillars accordingly from the back; then lay your pillars on the draft-board, and transfer line 8, where it intersects the pillar-lines. From these points, draw parallel lines with C, and see how much of the turn-under you have to deduct from the kant-board, as in marking off bottom-side, and mark off the pillar at that point. When line 7 intersects the pillar, you can get the width at that point by offering the pillar in its place on the bottom-side, and marking it on the under-side. On the inside, get the width the same as the points on bottom-side. Now we lay off our arm-pieces, by placing them on the draft-board, and transfer all the perpendicular lines that intersect them top and bottom; then set your level from the diagonal line P (which is the inside line of arm), with the perpendicular lines, and mark it across the top and bottom, at each transfer line. This will also give the level to cut the shoulders of the arms by, when you are framing the body. Now get your dividers, and set them at each point from P to the small line, and mark it on the top arm at each point, respectively, which will give you both the swell and thickness of the arms. In marking off the under side of the arms, you will perceive there is a little of the turn-under comes in their range, which will have to be deducted from the thickness at each respective point, which you get by drawing parallel lines with C from each point, until it reaches the turn-under line.

(To be continued.)

NOTES OF TRAVEL.

BY THE JUNIOR EDITOR.

CHAPTER IV.

"When thou haply seest
Some rare, note-worthy object in thy travels,
Make me partaker of thy happiness.' —SHAKESPEARE.

RESPECTED SENIOR:

MANY of our readers have undoubtedly come to the conclusion, that the Junior has ceased to perambulate the country, in search of subscribers, and other business in connection with the Magazine, but the reappearance of his familiar letters will, in all probability, reassure them that, notwithstanding the hard times, he is still in the land of the living.

My last chapter left me at Albany, but, as a great genius has said, "Westward the star of empire takes its way," I actually gathered from it the idea that something might be done in that direction. Turning my back upon the sunny hills of New England and the extensive workshops of her great cities, and taking the railroad train in a westerly direction, I wended my way through the great Mohawk valley, stopping occasionally at the little towns along the way, just often enough to convince myself that country carriage shops can make excellent lumber work—make plough-beams, or file saws, in a word, can turn their hands to almost anything, in cases of necessity.

During my rides I amused myself in reading the quack medicine placards, painted, in bold letters, upon the huge rocks, which occasionally relieved the sombre monotony of the Mohawk valley, and then, as though intending to do something desperate, I would come down with full force upon the large shops in the largest towns, where, strange to say, I did actually, in many instances, take large clubs, and received many encouraging promises; for the former I was *thankful*, for the latter, *h-o-p-e-f-u-l*. Shall WE be disappointed, Brother Stratton?

Did you ever mark the effect the influence of the times has on the reading propensities of the craft? One would suppose that everbody would have, not only the time, but the disposition to read when the times are dull. But alas! King Lager is apt to filch more than his share of the dimes—too apt to people the brain with reveries that satisfy, without feeding the immortal mind. These are, however, the exceptions rather than the rule.

At all the larger cities, along the Central Railroad, respectable clubs rewarded the efforts of your correspondent; but I must be excused from individualizing, for, oh, tell it not in Gath! the establishments which were doing the most business, only one year since, are doing the least now, and *vice versa*. But the usual number of incidents which serve to enliven the tour of a wide-awake traveler came opportunely to my relief. At Lockport I found that a teachers' convention had called together a goodly number of male and female teachers, who were about to take the extra train for Buffalo. A familiar voice (or, at least, one which I thought I had heard before) greeted my ears, and on directing my eyes to the opposite side of the platform, and seeing the speaker, I was glad—as I then thought—to recognize, in hers, the familiar face of an old acquaintance, formerly a resident of Cleveland, Ohio. But, alas! I shall never trust my eyes again. Subsequent inquiries proved that I was either mistaken, or that she had assumed an *alias*, and manufactured sundry items of history not included in my series. The latter hypothesis was not at all probable, for the Superintendent of the Buffalo schools informed a friend of mine, afterwards, that the said duplicate was a valued teacher in a high school of that city, where she had been engaged for the term of four years—the exact date at which the Cleveland teacher went Eastward. I mention this, as being a rather singular case of circumstantial evidence, which would, perhaps, under some circumstances, hang a man.

At Buffalo, the gentlemanly foreman in the extensive hardware house of Messrs. Pratt & Letchworth came to my aid with a light "turn-out," and with his assistance I managed to "surround" the city. But the worst feature of the day's adventure was the fact of the Junior's getting into the "lock-up." Yes, I was actually shut up within the gloomy walls of the Buffalo penitentiary! This would have proved a serious affair, had it not been for the fact, that it was the mammoth workshop where the above-named firm manufacture tons of hardware daily. I quietly observed to my friend, in whose company I was, as we passed through the different apartments, wonder-struck by the machinery, and thunderstruck by its din, that his employés might be very good workmen, but that, judging

from their exterior appearance, I was not favorably impressed respecting their moral character. With him this subject was a question of philanthropy; but I had brought my mind to bear upon it in a different light, although the subjects of our remarks seemed to look *very streaked.*

Messrs. Harvey and Wallace, who *did not* take the Western work the last year, extended a warm hand to our "New York Coach-maker's Magazine," and, strange to say, they and their workmen were "flush," *even in these hard times.* But trade, generally, in Buffalo was very dull. As I journeyed Westward, along the Lake Shore road, several clubs of subscribers were collected; but business west of the Ohio line seemed to have grown gradually less and less, until it appeared to have come to a perfect "stand-still." At Cleveland, and on the reserve generally, carriage-making was *desperately bad.*

Arrived at Columbus, the bad state of travel was relieved by the warm greetings of friends; but I found that *one* "Old Friend" had left for parts best known to himself, and an anxious group were inquiring after him with watery eyes. "Alas, poor Yorick, thou wert a fellow of infinite jest!" But, lest I may weary the reader with the continuation of my rambling notes, I shall close with this chapter, and "turn up" in a future number in a new character.

THE TRAINING AND MANAGEMENT OF COLTS.

The following instructions with relation to the management and training of colts, and the subsequent operations upon obdurate and ungovernable horses, were originally written and published by Mr. Rarey, some three years ago, and are an important part of his system. If a colt is properly broken in his first encounter with man, the necessity for a method of taming, other than that used for wild horses, would never have been experienced, therefore these instructions are peculiarly valuable.

HOW TO HALTER, SADDLE, AND BRIDLE A COLT.

In breaking a colt, we should first endeavor to make him conscious of what is required of him. Fettering him with a halter for the first time, placing the saddle upon his back, fastening the girths, are all matters of paramount importance, demanding the greatest degree of patience, perseverance, and an intuitive knowledge of his idiosyncrasies.

Before putting a halter upon a colt, he must be rendered familiar with it by caressing him, and permitting him to examine the article with his nose. Then place a portion of it over his head, occasionally giving it a slight pull, and in a few minutes he will be accustomed to these liberties, and then the halter may be fastened on properly. To teach him to lead is another difficulty. Stand a little on one side, rub his nose and forehead, take hold of the strap and pull gently, and, at the same time, touch him very lightly with the end of a long whip across his hind legs. This will make him start and advance a few steps. Repeat the operation several times, and he will soon learn to follow you by simply pulling the halter. The process of saddling and bridling is similar. The mouth of the colt should be frequently handled, after which introduce a plain snaffle between his teeth, and hold it there with one hand, and caress him with the other. After a time he will allow the bridle to be placed upon him. The saddle can now be brought in and rubbed against his nose and his legs; next hang the stirrup strap across his back, and gradually insinuate the saddle into its place. The girth should not be fastened until he becomes thoroughly acquainted with the saddle. The first time the girth is buckled, it should be done so loosely as not to attract his attention; subsequently it can be tightened without inspiring him with fear, which, if fastened immediately, it would most certainly do. In this manner the wildest colt can be effectually subjugated by such imperceptible degrees that he gives tacit obedience before he is aware of his altered condition.

THE PROPER WAY TO BIT A COLT.

Farmers often put a bitting harness on a colt the first thing they do with him, buckling up the bitting as tight as the can draw it, to make him carry his head high, and then turn him out in a lot to run a half a day at a time. This is one of the worst punishments that they could inflict on a colt, and very injurious to a young horse that has been used to running in pasture with his head down.

A horse should be well accustomed to the bit before you put on the bitting harness, and when you first bit him you should only rein his head up to that point where he naturally holds it, let that be high or low; he will soon learn that he cannot lower his head, and that raising it a little will loosen the bit in his mouth. This will give him the idea of raising his head to loosen the bit, and then you can draw the bitting a little tighter every time you put it on, and he will still raise his head to loosen it. By this means you will gradually get his head and neck in the position you wish him to carry it, and give him a graceful carriage, without hurting him, making him angry, or causing his mouth to get sore.

If you put the bitting on very tight the first time, he cannot raise his head enough to loosen it, but will bear on it all the time, and paw, and sweat, and throw himself. Many horses have been killed by falling backward with the bitting on: their heads, being drawn up, strike the ground with the whole weight of their body. Horses that have their heads drawn up tightly should not have the bitting on more than fifteen or twenty minutes at a time.

HOW TO HARNESS THE COLT.

You should, by all means, have your harness made to fit your horse, especially the collar. Hundreds of horses have been spoiled by collars that do not fit as they should. A little attention to this matter beforehand will facilitate your progress very much. Take your harness into the stable; go through the same process that you did with the saddle, letting the colt examine your harness satisfactorily; then put it on carefully, and, after you have it all complete, put on your lines; use them gently, as he is rather skittish, until he is used to them a little; then lead him back and forth in the stable, until he does not seem to mind the fitting of the harness to his body; then take hold of the end of the traces and pull slightly at first, increasing your strength until he will pull you across the stable back and forth; then hitch him to whatever you wish him to pull.

TO HITCH UP THE COLT.

This should be done with great caution, first letting him examine the buggy or sulky in his own way of examining objects; then carefully hitch him up; having everything safe, let him start the buggy empty, and pull that at first in that way; then get in, and let him take it slow, and he will not be near so apt to scare, and by degrees you will be making a good work-beast.

If you want to have a horse that will be true to pull, and that thinks he could pull a mountain, never hitch him to anything that he cannot pull, and after he is used to pulling, he just thinks that he can pull anything, because he always has, and he does not know anything about his strength beyond his experience.

THE KIND OF BIT, AND HOW TO ACCUSTOM A COLT TO IT.

You should use a large, smooth, snaffle bit, so as not to hurt his mouth, with a bar on each side to prevent the bit from pulling through either way. This you should attach to the head stall of your bridle, and put it on your colt without any reins to it, and let him run loose in a large stable or shed some time, until he becomes a little used to the bit, and will bear it without trying to get it out of his mouth. It would be well, if convenient, to repeat this several times before you do anything more with the colt: as soon as he will bear the bit, attach a single rein to it, without any martingale. You should also have a halter on your colt, or a bridle made after the fashion of a halter, with a strap to it, so that you can hold or lead him about without pulling on the bit much. He is now ready for the saddle.

HOW TO MOUNT THE COLT.

First soothe him well on both sides, about the saddle, and all over, until he will stand still without holding, and is not afraid to see you anywhere about him.

As soon as you have him thus gentled, get a small block, about one foot or eighteen inches in height, and set it down by the side of him, about where you want to stand to mount him: step upon this, raising yourself very gently; horses notice every change of position very closely, and, if you were to step suddenly on the block, it would be very apt to scare him; but, by raising yourself gradually on it, he will see you, without being frightened, in a position very near the same as when you are on his back.

As soon as he will bear this without alarm, untie the stirrup-strap next to you, and put your left foot into the stirrup, and stand square over it, holding your knee against the horse, and your toe out, so as not to touch him under the shoulder with the toe of your boot. Place your right hand on the front of the saddle, and on the opposite side of you, taking hold of a portion of the mane and reins, as they hang loosely over the neck, with your left hand; then gradually bear your weight on the stirrup and on your right hand, until the horse feels your whole weight on the saddle. Repeat this several times, each time raising yourself a little higher from the block, until he will allow you to raise your leg over his croup and place yourself in the saddle.

There are three great advantages in having a block to mount from. First, a sudden change of position is very apt to frighten a young horse which has never been handled. He will allow you to walk up to him and stand by his side without scaring at you, because you have wonted him to that position; but if you get down on your hands and knees and crawl toward him, he will be very much frightened; and, upon the same principle, he would frighten at your new position if you had the power to hold yourself over his back without touching him. Then, the first great advantage of the block is, to gradually accustom him to that new position in which he will see you when you ride him.

Secondly, by the process of leaning your weight on the stirrups and on your hand, you can gradually accustom him to your weight, so as not to frighten him by having him feel it at once. And, in the third place, the block elevates you so that you will not have to make a spring in order to get on the horse's back, but from it you can gradually raise yourself into the saddle.

The Home Circle.

For the New York Coach-maker's Magazine.

THE CASTLE I BUILT.

BY LUA DELINN.

LIKE some structure by magic upreared in the night,
Stood my castle fair in the morning light;
Nor hammer nor chisel had given it mould,
Though stately it stood, like the temples of old.
O! that castle of mine was wondrous fair,
And *none the less real, though built in the air;*
There were gardens around it, which rivaled that one
Known as Eden, long since, in the land of the sun;
A stream purling on, now in light, now in shade,
As it wound through the forest, or danced in the glade;
The flowers on its margin, with blush and with quiver,
Saw their images worn by the beautiful river,
While the stream gliding on, as an offering of thanks,
Sang the loves of the flowers that bloomed on its banks.
There were bowers where the brightest sun ne'er shone,
There were grottos as fair as Calypso's own,
There were paths that wound through a chequered shade,
Where the dark green leaves in the sunshine played;
There were fountains whose gentle murmurings fell
On the ear like the chime of a silver bell.
Through hall and through bower rang the voices of song,
For my castle was filled with a joyous throng.
I know not if all of those guests were fair,
I only know that the *loved* ones were there.
Who hath not bowed low at an earthly shrine?
Each heart hath its idols—full many had mine.
"Full many *had* mine!" ah! bid me not tell
How many *still* hide in my heart's deepest cell:
But the voice of my worship dies out in a sigh—
The voice so exultant in the days gone by;
A spell hath fallen on hall and on bower,
Which may not be lifted by human power.
'Twas thus, if the story is rightly told,
That Sheddad, one of the kings of old,
Determined to build him a royal hall,
With gardens that should rival all
Which that holy book, the Koran, relates
Of the beauty enclosed by the Paradise gates.
To punish his pride, a perpetual spell
Was laid on his palace (so Moslems tell),
And the royal palace, its gardens bright
Have long been hidden from human sight,
Save at long intervals—only then,
To keep his sin in the minds of men.
The wanderer o'er the desert sands,
Weary and faint, delighted stands,
And sees, with tears of glad surprise,
That palace in his pathway rise.
May he taste of a draught from those waterfalls,
Of the fruit bending low o'er the garden walls;
From those clustering flowers may he pluck one rose,
Whose fragrance may cheer him as on he goes?
He may not—the beautiful vision grows dim—
And the desert alone remains to him.
And so there are times when I catch a gleam
Of the flowers that grew by that dancing stream,
Of the winding paths where my feet have strayed,
Of the fountains playing as then they played;
When I tread again the enchanted hall,
And loved ones throng at my lightest call.
But alas! alas! for the spell that falls
On those beautiful gardens, those stately halls;
It may not be lifted, the vision is o'er,
And life is again what it once was before.

THE FEAR OF BEING AN OLD MAID.

BY MRS. E. B. HALL.

WHEN I was a little girl, I was a fat, merry, jolly dumpling, as happy as the day was long. Everybody pinched my red cheeks, and I waddled about with my doll in my plump arms, finding fun in everything, and fully believing that my doll was as sensible as myself; and perhaps she was, almost. But, though I had a natural antipathy to a spelling-book, and no fondness for spending a long summer's afternoon in poking a needle in and out of a bit of calico; though I considered patchwork all foolishness, and gussets as utter superfluities; though I was called a simpleton for asking my mother why she cut cloth up and then sewed it together again, still, I was fond of picking up ideas after my own fashion. When the wise people around me supposed I was thinking of nothing but play, my two little ears were open to every word spoken in my hearing. And many was the word impressed on my memory, which the speaker forgot the next moment. The talk around me was my real education, as it is of all children, send them to what school you may.

When I was ten years old, I had one sister, aged fifteen, and another seventeen; and, as usual with girls of that age, they had a set of cronies, some very like and some quite unlike them in character. One afternoon, as I was tending my doll Ophelia, who was sick in bed, I heard a brisk discussion among these girls, which, I may almost say, decided my fate for life.

The first words that caught my attention came from an animated, romantic girl of sixteen, scolding because the heroine of a novel she had just read was left unmarried at the end of the story! What surprise was expressed at this catastrophe! what indignation!

One of my sisters did not seem to sympathize with this burst of disapprobation, and then came the pithy question, "What, would you be willing to die an old maid?" Mary said very quietly, "Yes;" and sister Ellen added, "So would I."

Then such looks of amazement and incredulity. "You can't mean what you say," cried one. "If I did not know you too well to think you a hypocrite—" said another. "Why, it was meant that all women should be married!" exclaimed a third. "Then why are they not all married?" asked Mary, with her usual simplicity.

Eager and hot grew the controversy, and I lost not a word, while Ophelia lay flat on her back, her stiff kid arms sticking out, and her croup quite forgotten. Then first did I take notice of that terrible combination of monosyllables, "Old Maid." In how many different tones of contempt, dread, and deprecation, did I hear it uttered by those juvenile voices! What anecdotes came forth about the cross old maids, and fidgetty old maids, and ugly, and dressy, and learned, and pious, and flirting, and mischief-making old maids. Never did a bevy of regular fifty-year-old spinsters utter so much scandal in one afternoon as was poured forth by these blooming young creatures. Two or three friends of my mother, whom I had always cherished in my innocent affections, because they talked so pleasantly and were so kind to me, now appeared like new personages. "Miss Z. was so ugly, she never could have had an offer!" "Miss Y. dressed so shabbily, and wore green spectacles, to look literary." And "Miss X. was forever talking about Sunday-school and society meetings," and so on.

You may be sure that the next time these ladies came to our house, I scanned very closely the face of Miss Z., a face that I had always loved before; but now I saw that it was exceedingly plain. I looked hard at Miss Y.'s drab-colored bonnet and shawl, perceived that they were old-fashioned and ordinary, and that her green spectacles looked pedantic. Then Miss X., beside whom I had always squeezed in upon the sofa, encouraged by her kindly smile and delighted with her conversation—how uninteresting she had become! They were *old maids!*

It must be observed that my sisters—right good, sensible, domestic girls they were—had no part in this bewilderment of my young ideas. They were in the minority; so I took it for granted they were in the wrong. Besides, what children are ever as much influenced by what is uttered in the familiar voices of their own family as by words of comparative strangers? Take care of what you say at a friend's house, with the young folks catching up every random sentiment you drop. Many a judicious mother's morning exhortation has been blown to the moon by some light dinner guest, who did not, after all, mean to give his real opinion, or whose opinion was not worth having.

And now, I assure you, my education went on rapidly. It is perfectly marvelous, in how many ways and by what different sorts of people a young girl is taught that it is a terrible thing to be an old maid. Fools never show their folly more than in their hackneyed jests upon this topic; but what shall we say of the wise folks, who sin almost as often in the same way? What shall we say of the refinement of him who is gentlemanly in thought and expression on all subjects but this?—of the humanity and chivalry of him who assails the defenseless?—of the justice of him who taxes a class with the faults of individuals, and wounds with that meanest of weapons—a sneer?—or of the Christianity of him who indirectly censures and ridicules one of the arrangements of Providence?

I learned my lesson thoroughly, for it came to me in some shape every week. I read it in every novel and newspaper, and heard it from every lip. The very men who spoke truth and sense on the subject sometimes neutralized it, by an idle jest in some moment of levity, and the jest drove out the truth from my young heart. At eighteen I lived only for the ignoble purpose—I cannot bear to say—of getting married; but what could have been the ruling wish of one who had been taught by society to dread celibacy worse than death? I dare say I betrayed it everywhere. I dare say I was duly laughed at.

At last, quaking on the verge of six-and-twenty, I had an offer—a most absurd one. I was six years older than my lover, had ten times as much sense, probably, except on one point. I knew that he was "rather wild," as the gentle phrase goes. In short, I neither loved nor respected him; but I was willing to marry him, because then I should be Mrs. Somebody, and should *not* be an old maid.

My parents said "No," positively. Of course I thought them unreasonable and cruel, and made myself very miserable. Still, it was something to have had "an offer" of any kind, and my lips were not hermetically sealed. I had several confidants, who took care that all my acquaintances should know the comfortable fact that I had refused Mr. S.

I went on with increasing uneasiness a few years longer, not seeking how to be useful or trying to find out for what good purpose I was made. Neither was I looking for a companion who could sympathize with my better aspirations and elevate my whole character, for I had no right views of marriage. I was simply gazing about in anxious

suspense, upon every unmarried man of my acquaintance, for one who would lift me out of the dismal Valley of Humiliation into which I felt myself descending. Had I met Apollyon himself there, with *the* question on his lips, I believe I should have said "Yes."

At thirty-six I wore more pink ribbons than ever, was seen everywhere that a respectable woman could go, wondered why girls went into company so young, found that I was growing sharp-faced and sharp-spoken, and was becoming old-maidish in the worse sense of the word, because I was becoming an old maid against my will. I forgot that voluntary celibacy never affects the temper.

My sisters, be it remembered, were older than I. They, too, were single. But they had lived more domestic lives than I had, had read fewer works of fiction, had been cultivating their own natures, and seeking to make everybody around them happy. And everybody reverenced them, and loved to look upon their open, pleasant countenances—I mean everybody worth pleasing—and they were very happy.

At last our good parents died, and left each of us a little independence. Within a year I was married.

I was married for my money. That was ten years ago, and they have been ten years of purgatory.

I have had bad luck as a wife, for my husband and I have scarcely one taste in common. He wishes to live in the country, which I hate. I like the thermometer at 75 deg., which he hates. He likes to have the children brought up at home, instead of at school, which I hate. I like music, and want to go to concerts, which he hates. He likes roast pork, which I hate, and I like minced veal, which he hates. There is but one thing which we both like, and that is what we cannot both have, though we are always trying for it—the last word.

I have had bad luck as a mother, for two such huge, selfish, passionate, unmanageable boys never tormented a feeble woman, since boys began. I wish I had called them both Cain. At this moment they have just quarreled over their marbles. Mortimer has torn off Orville's collar, and Orville has applied his coltlike heel to Mortimer's ribs; while the baby Zenobia, in my lap, who never sleeps more than half an hour at a time, and cries all the time she is awake, has been roused by their din to scream in chorus.

I have had bad luck as a housekeeper, for I never kept even a chambermaid more than three weeks. And as to cooks, I look back bewildered on the long phantasmagoria of faces flitting stormily through my kitchen, as a mariner remembers a rapid succession of thunderbolts and hurricanes in the Gulf of Mexico. My new chambermaid bounced out of the room yesterday, flirting her duster and muttering, "Real old maid, after all!" just because I showed her a table on which I could write "slut," with my finger, in the dust.

I never see my plump, happy sisters, and then glance in the mirror at my own cadaverous, long, doleful visage, without wishing myself an old maid. I do it every day of my life.

Yet half of my sex marry as I did;—not for love, but fear!—for fear of dying old maids.

They have their reward. And they whose idle tongues create this mischievous fear, and thus make so much domestic misery, have their responsibility.

A MAN recently *walked* two days *running* and was *weak* a *fortnight* afterwards.

Pen Illustrations of the Drafts.

THE ALBANY HEARSE.

Illustrated on Plate XXIII.

THIS is another fine contribution from Messrs. Goold & Co., Albany, New York. It was originally designed by our friend Mr. Walter R. Bush, and sketched by Mr. Wm. H. Perry. The drawing is to the half-inch scale, and gives a good representation of the vehicle. The torches (inverted) and plume-sockets are silvered. These are in duplicate, black, so that—as they are made to take off—either a set of silver or plain black torch and plume-sockets may be used, as fancied by those hiring the hearse. The body proper is a coach body, with an addition back to fit it for hanging the doors, one of which is represented here, to which a mock and carved pump-handle has been added, to give it a proper finish. The painting, of course, is plain black.

The trimmings are black velvet curtains, with silver fringes, cords, and tassels. The head-lining is formed with an oval ray for a centre-piece—the outer edge of the ray being silver fringed, to which are added a silver rosette and tassel. A flush work parts and ties to one side in the centre, so as to show the ray, but meeting at the back and front, diamond fashion. The front finishes with parted drapery, to correspond with the sides and back, but exposes a black ground of plain velvet. We give an illustration of one of these doors, two of which open behind.

This hearse was made for Messrs. Foland & Vanderwerken, of Albany, at a cost of about $1,200, and is the finest thing which has yet come under our inspection.

For the New York Coach-maker's Magazine.

TROTTING BUGGY.

Illustrated on Plate XXIV.

TROY, N. Y., Sep. 28th, 1858.

To the Editor of the New York Coach-maker's Magazine.

INCLOSED you will find a sketch of a light trotter that I am now finishing, which, I think, for lightness and durability, makes a very good and convenient light buggy. It is made as light as 160 lbs.—from 160 to 210 lbs. They do away with the trotting appearance, by making the body high. Some people will say: "Now, I want a very light buggy; but I don't want it to look like a trotting buggy; I want it to have the appearance of a business buggy." This, I think, comes nearer the thing than anything I have ever got up in the light buggy line. The outside spindles are made of three-eighths iron, with a collar in the centre to represent a spindle, and the foot of the rod sets on the sill of the body, the same as the brace from the seat of a skeleton wagon. The sides of the box do not connect at all with the iron legs, so that there is no strain from the seat upon

the body at all. The iron legs can be plated or japanned. Either looks well. The wood-spindles are placed in the top of the box, and run up into the edge of the seat panel, outside of the iron legs that run across the bottom of the seat-frame. They look well, if made light.

Yours truly,

E. CHAMBERLIN.

DALZELL BUGGY.

Illustrated on Plate XXIV.

We have been favored, by Mr. Dalzell, of So. Egremont, Mass., with the unique design for a light trotter, given on the plate above named. All the novelty there is about it is seen in the side of the boot, which is sun-rayed with patent-leather in folds terminating in a panel. Another plan would be, to finish this side by substituting cane-work for leather, which makes a very neat and tasty finish, and, in our judgment, is preferable to the leather.

For the New York Coach-maker's Magazine.

THE PICCOLOMINI CALECHE.

Illustrated on Plate XXV.

MR. EDITOR: As we are, in a great measure, indebted to great people and events for names for our different styles of carriages, allow me to introduce to your patrons the Piccolomini caleche. I was in hopes to be able to design something for the Atlantic cable event; but, like the celebration, it would have been rather premature, and so I have escaped that crest-fallen position, analagous to a dog carrying his tail between his legs.

The style and plan of this carriage are simple and easy in appearance, and will admit of track from 4 ft. 8 in. to 5 ft. 2 in., by using straight transoms for a narrow track, and crooked transoms for a wide track, which rule can be applied to a number of different styles, as all workmen know, who are capable of making caleches.

JOSEPH IRVING.

Sparks from the Anvil.

For the New York Coach-Maker's Magazine.

SECTIONAL ELLIPSIS CARRIAGE-PART.

Illustrated on Plate XXVI.

BRIDGEPORT, Sept. 13th, 1858.

MR. EDITOR:—The accompanying design of a sectional carriage-part is useful for vehicles where a short turn is required. Take, for example, a coupé, where there is a swell on the front part of the pillar. The carriage-part can be six inches closer to the body than in the use of the old or common fifth-wheel. The slide-wheel may be applied to any one of our ordinary carriages, if required.

Fig. 1 represents the top portion of the fifth wheel; fig. 2 shows the under portion of the same part of a carriage; 2 is the slide-wheel; 3 is the back circle upon which the upper portion of the fifth wheel plays; 4 is a bird's-eye view of the axle-bed on which the transom-plate rests; 5 shows the back socket in which the back end of the pole is inserted; 6 is a top view of the spring; B B shows the two back stays; C C the two front stays, the outward branch of which is secured by the roller-bolts, which serve the purpose of whiffletrees, and are shown horizontally instead of perpendicular, as, were it possible, they ought to be. At E is shown the fifth wheel-stop. D indicates, in fig. 1, the place of the second stop, which plays in the groove at A of the slide plate. At 7 is represented the swept back-bar.

G. I. MOORE.

[The plate which accompanies the above communication—of which the figures on plate 26 are but a portion—is one of the finest pieces of drawing we have ever seen, and is an exceedingly creditable performance to its author. We would have been pleased to have given all the figures there represented, complete, did the expense of engraving warrant it; but we think we have presented all which is essentially necessary, and hope our correspondent will be satisfied, by "taking the will for the deed." In the mean while, we trust our patrons will bear in mind that our endeavor to please them, in this instance, as in others heretofore, has cost us much expense, which nothing but a liberal encouragement will justify.—ED.]

THE IRON TRADE IN EUROPE.

LATE English papers complain that the prospect of the iron trade continues gloomy and unsatisfactory, and, unless some improvement takes place, several firms will have to reduce the number of hands, and work short time. Most of the Continental ports are closed for the winter, so that few foreign orders are expected until the spring. The decline in the demand for iron from America has been one of the chief sources of depression. In 1853–4, there was an exceedingly large demand for iron from America, an increase of one-third having taken place in the value of the exports from 1852–3. The American crisis of 1854 caused a reaction, which the magnificent crops of the last and present year have removed. The stocks in the States are known to be small, but, notwithstanding this fact, the orders have been on a scale much below the average. This state of things has ruled in Staffordshire, as well as in other counties, and the important question of a reduction in prices will force itself upon the attention of iron-masters, at the ensuing quarterly meetings. While bar iron continues at £9 per ton, the iron-makers in the United States become formidable competitors with the English manufacturer; and if the price of iron were reduced to £8 per ton—which will, in all probability, be the case at the next meeting—the American demand would, to a great extent, be regained. Indeed, we have heard it contended that the price should be reduced to £7 per ton. It is impossible for iron-masters, at the present price of labor and materials, to make iron remuneratively at less than £9 per ton. It follows, therefore, that whatever be the amount of the reduction in price, a corresponding decline will be made in the wages of the men—a step very undesirable during the present high price of provisions. The coal trade is active, in consequence of the winter demand, and prices are unaltered. The export of coal from South Yorkshire is proceeding satisfactorily, and would be extended, if the facilities for shipment were increased.

THE IRON TRADE—LATER.—The iron trade of Staffordshire continues dull, although a slight improvement is announced in the orders received from the United States.

At Sheffield trade had shown further signs of improvement, and in some branches of the American trade business was improving.

The French iron-masters are again complaining of the insufficient protection of their interests, to enable them to compete successfully against foreign iron.

A letter is said to have been sent by the chief authorities in Paris to the French Custom-house, stating that the decree admitting iron duty free, under certain conditions, and which has expired, would not be renewed. The *Moniteur* had not, however, confirmed this.

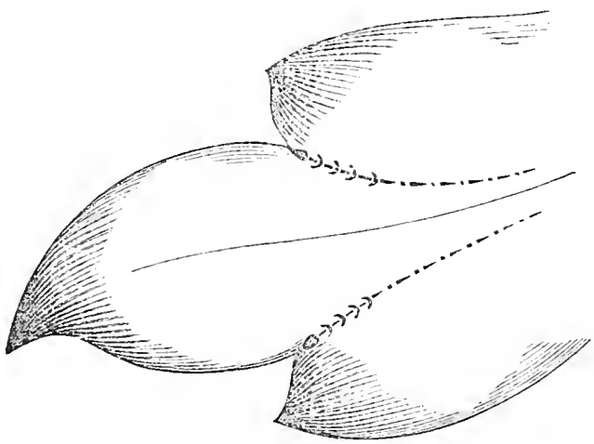
Paint Room.

For the New York Coach-maker's Magazine.

TOUCHING UP CARVING.

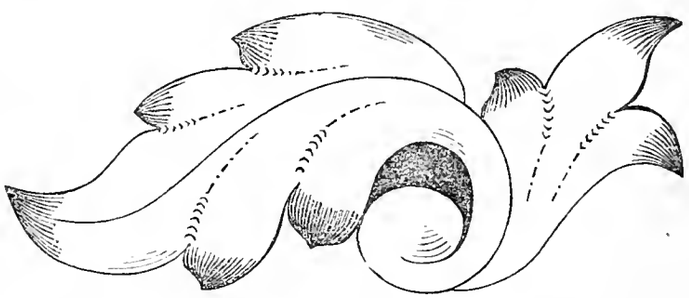
BY JAMES SCOTT.

WITH but few exceptions, painters who can stripe think that they can touch up carving just as well as they can draw a line. I say *think*, because they all try it, and yet not more than half the number make a neat job—a state of affairs which is, in my opinion, mainly the result of using



pencils not well adapted to the purpose. The manner of touching up, illustrated in this number of the Magazine, is practiced by all the best and most tasteful painters of my acquaintance; so, you see, I don't claim it as original—an admission which, I trust, my dear reader, will persuade you to lower the point of your nose, if, perchance, the assertion contained in the first sentence of this article, caused you to elevate it. And, though a digression, I would here say, that if anything in my scribblings on painting should strike you as being egotistical, or in any way objectionable, don't read them! If you think you can do better, just invest a dime in foolscap and tallow candles, and "pitch in." If readable, Mr. Stratton will, no doubt, publish them: and that portion of the craft whom the "Paint Room" is intended to benefit will be your debtor. My articles are written expressly for those who need the information contained in them, and not for those fault-finding individuals who know all that is worth knowing, *and a good deal more. Nuff ced.*

As I intimated before, many painters use pencils for touching up carving that are not well adapted to that purpose. Some use the same pencil they stripe with, while others work with a short, stumpy concern that would, almost, do to black irons. If you want to do it in the



manner shown in the engraving, procure a camel-hair pencil, three quarters of an inch long, containing about as much hair as an ordinary striper. Get one with a fine point, and perfectly straight. Commence in the centre of the leaf—at the point of course—bear down slightly at starting, and gradually elevate the butt, or heel, as some term it, of the pencil, which will bring the mark to a gradual point.

A glance at the engraving will explain the balance of the operation. A shorter pencil may be employed for the "dottings" which mark the junction of leaves. If the style is too florid to suit your taste, make it plainer by leaving out some of the superfluities.

For the New York Coach-maker's Magazine.

A LETTER FROM AN ENTHUSIASTIC PAINTER. —WHAT OUGHT TO BE DONE.

MR. EDITOR—Feeling that I would like to contribute something of interest to your valuable Magazine, something that concerns our branch of the craft, I do so, hoping that I may at least be enabled to impress fully upon the minds of my fellow-workmen the great importance of their trade, the beauty of their work, and the necessity of their skill to the whole world. When each painter feels this, we may hope to see something emanating from the workshops of our craft that will do honor to themselves and impart a vast credit to the country. Especially, at this juncture, ought American painters to use every endeavor, and strain every nerve, and devote their greatest powers and best energies to raise the standard of their art, in order to keep pace with the improvements of the rest of man's inventions. But, no; we are content to grumble over our work from morning until noon, and from noon until night, without feeling one single spark of emulation. My earnest desire is, that all such would retire immediately from the scene of action. This I entreat them to do for their own sakes, for the sake of the craft, and for their country's sake, for a wrong it is for them to remain any longer, view the matter which way they may.

Such a state of things is not surprising, because there is nothing to oppose such a repetition of affairs within our shops and among ourselves. Many will say such things will take place constantly, and cannot be helped; others will think something might be done; but I, myself, will

take the liberty of suggesting the only alternative applicable to this most intolerable burden. That remedy is, a unity of action from one boundary of our country to the other—a society of carriage painters, or, indeed, all painters. What a powerful auxiliary to the trade it would be. This is not a mere visionary scheme of the writer, for I have met with many of my brother tradesmen who have expressed an entire willingness to aid such a project to the best of their ability. Some of these men are those whom the world is proud to lean upon and look up to for instruction and advice, therefore such a recommendation would preclude all possibility of personal aggrandizement or public emolument to be derived from such a scheme. I know there are several objections that will force themselves to the notice of the reader of these pages; among them will, perhaps, be found the following: The great magnitude of such an undertaking and the impossibility of bringing all within our limits. In answer to this, I will merely state that I am very much mistaken if such earnest endeavors will not be appreciated, and to a greater degree than many are willing to admit. Without doubt, nearly all of the craft would be willing, and others would follow, lending their aid, not only pecuniarily (which would be but little), but also to the puzzling of their craniums for the production of new and superior colors, dryers, the testing of different methods of procedure in painting, striping, varnishing, ornamenting, etc., and disseminating this acquired knowledge throughout the whole civilized globe. Would we not feel that we had done something for ourselves, for our families, for our country, for poor human nature, and would we not be the happier for it?

In the second place, objections might be raised to the ability of the craft to support such an organization. To this objection, I would reply in the language of the senior editor of this Magazine, to a gentleman in New York city, when he expressed his fears that the new work would not be supported, "that the carriage-makers of this community are a class of men too well-informed, too active and intelligent, not to appreciate the worth and the assistance the Magazine would render them in the course of a year." The same is quite applicable to our case.

These and similar other objections will come down upon this proposal, as the writer of this article fully expects; but, without doubt, the most intelligent portion of the readers who happen to peruse this article will readily admit the possibility of the scheme, and the due consideration with which it ought to meet on every hand. Another advantage, accruing from such an arrangement, would be the publication of a serviceable journal, containing accurate accounts of experiments, as these might from time to time be tried on colors, etc. For there might be a laboratory, with such apparatus attached as would be found necessary, together with a competent chemist, for the purpose of developing the chemical resources of our art, and other facts worth knowing, besides those before mentioned elsewhere in this article.

A few words more, and I will close; hoping some more able pen, some zealous advocate, will step forward and express his honest convictions. By so doing, we may, in time, have one grand centre to rally around—some point from whence to start, and some object to gain—a medium which would guide the master and protect the journeyman in all their rights and privileges. Such a system of apprenticeship could be adopted as would prove advantageous to all parties concerned.

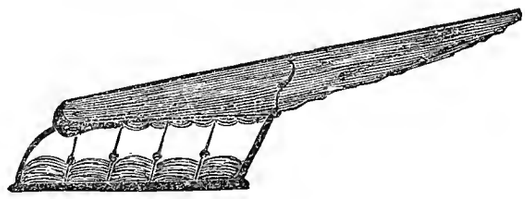
Men able and willing to undertake the organization of a society for such purposes can almost everywhere be found. Those of learning and talent are scattered over our land, and waiting impatiently, as it were, for something to do. Look on which side you will, there you will find them. Why, then, shall we defer this matter any longer? Everything seems to demand it of us. All require its accomplishment at our hands. If only one meeting in New York, New Haven, Rahway, Newark, or any other great carriage mart, would take the first step, called by some of our first men, it would partake of that interest which characterizes talent wherever it may be found. The coming winter would afford an excellent opportunity for such an occasion, because all could better attend then than in the busy seasons of spring and fall.

All can perceive at once the necessity and plausibility of such a course. It would alike prove advantageous to all masters, journeyman and apprentices. Indeed, its healthy influences would extend on every hand, thereby encouraging all the craft to flourish as the green bay-tree, affording protection and prosperity to all concerned.

JOHN SHUTTLEWORTH.

Trimming Room.

THE MOCK BUGGY-TOP.



THIS is an age of show and make-believe action; but we here present our readers with something, which, although it has its usefulness *in show*, yet has its usefulness in point of comfort in combination with economy as well. There is but one bow required in our mock-top, which is raised to about six inches above the back seat-prop, or can be let fall at pleasure by the use of a short joint, as in our drawing. The whole arrangement presents the appearance of a top, to the casual observer, when the carriage is in use, and, although it is no protection against the storm, is a partial defense against the wind when one is driving with it, and, therefore, more beneficial to weak spines than no top at all. It, also, effectually does away with that "fancy" appearance which attaches itself to the no-top buggy, and in which many a refined female refuses to ride. A mock-top of this description, of prunelle, can be put on a buggy for from twelve to fourteen dollars, including the shifting-rail.

THE PRESENT STYLE OF CARRIAGE-TRIMMING.

THIS being the close of the year—the tail-end of an unusually dull season—we have but very little variation to report in the mode of trimming buggies, prevalent in New York, from that of last spring. The herring-bone back to

stick-seats is still made, occasionally varied by lining-nails, buttons, etc., through the length of the back. Dashes are finished very plain, and the white stitching, so long in vogue for cushion-fronts, falls, boots, and tops, is sometimes varied with black, and many buggies are finished very plain, without any stitching scarcely.

The other day we observed, standing at the door of a Broadway repository, a "Byron," or New York buggy, such as is figured on Plate I. of this volume, minus the top, trimmed—the centre of the falls, tops of cushions, and inside lining of the seat—with fine drab cloth, which, being finished with patent-leather, as a substitute for lace, made a neat and tasty job.

We have also seen braided patent leather cord and fringed leather tassels applied to the backs of coaches, as a substitute for the usual silk or worsted outside cords, which not only makes a novel finish, but is a decided improvement over the old mode, which was liable to soon fade when exposed to the weather; whereas the new substitute not only retains its beauty a longer time, but may actually, when it becomes dull, be made to look "as good as new," by the application of a little English leather varnish. We think this mode of finish particularly well calculated for the back service, so constantly liable to exposure in the open air. We are very much mistaken in our expectations, should not this improved method in the finish of coaches supplant that so long in use, and which is objectionable from various reasons.

RECIPE FOR MAKING PASTE.

If you want a paste that *is a paste*, buy of the druggist, for one dollar, one pound of isinglass, dissolve three leaves of it with a piece of alum about the size of a crab-apple, in three pints of water, thickened with wheat flour and boiled well. This paste will, if well made, be more elastic and keep in good condition longer than any other. There is want of judgment displayed on the part of some persons in making paste. They will throw in their flour after they have put in the water. This is entirely wrong. First, put in your flour, afterwards the water, as you find necessary, after stirring. By this operation you get the flour well saturated and have a good mixture, whereas, when the flour is thrown into the kettle last, no after-stirring can effectually prevent its being *lumpy*.

AN APOLOGY.

This department is wholly given up to the charge of our assistant, who, in consequence of ill-health, has not been able to attend to his duties for the past two months. The writers, too, who have been engaged to contribute to this column, have been so dilatory about "sending in something," that the general editor this month again finds himself "in a fix." We trust, however, to be favored with an article of interest before the next number is issued. With these remarks, we would ask the indulgence of the trimming fraternity a few weeks longer.

The New York Coach-maker's Magazine.

DECEMBER 1, 1858.

E. M. STRATTON, Editor.

TO READERS AND CORRESPONDENTS.

Erratum.—In closing the article on the Geometry of Carriage Architecture, on page 108, the printer made the author state that "one and a quarter inch is sufficient for the swell of the door." It should read, *one quarter of an inch* is sufficient, &c.

"W. F., of Ga."—We do not know enough about the "Patent Vender" from ——, you refer to, to advise you otherwise than to have nothing to do with him. We are tired of hearing about this wolf "who goes about seeking whom he may devour."

"F. W. B., Ark."—The recipe for patent leather reviving polish will be sent, when you send one dollar by mail, as directed on page 93, October number.

"T. F., N. Jersey."—The subscription price, yearly, for the *Mercure Universel* is $5.50. We suppose you are aware that it is in the French language. We will accommodate you on the receipt of the amount.

"W. K., of S. C."—There are several contrivances for setting boxes, but we know of none more convenient and, at the same time, efficient, than the one invented by Dole, and advertised under the head of "Office Business" in our columns.

"F. W., of C. W."—Your letter, enclosing $3, is received, but in addition you should have sent us 25 cents to pay the United States postage, which, in all cases, we are obliged to prepay on magazines when mailed abroad.

☞ We very frequently receive letters, of which the following is a specimen;

"Dear Sir—I would like you to send me a copy of your Coach-maker's Magazine as a sample, and if I like it I will subscribe."

We have, since the commencement of our volume up to this present writing, invariably done as requested, until our broken volumes have multiplied on our hands. We find, or at least we have come to the conclusion, that this request is but another mode of getting a number *dishonestly*, and in order to protect ourself from the evil, we shall hereafter be obliged to charge 25 cents as a guarantee against impositions. In nine cases out of ten these *customers* are never heard from again, and it is very evident they never had any serious intentions of subscribing.

A VISIT AMONG OUR EASTERN FRIENDS.

In the morning of the 27th of October we left our editorial sanctum for some three days' visit on business "down East," so, springing into a city car, we were hurried direct for the Twenty-seventh street station of the N. Y. and N. Haven Railroad. In consequence of the passage of a city ordinance lately—and which had to be enforced by the strong arm of the police—from this point, after taking our seat in the Company's car, we were still further conveyed, some quarter of a mile *through a tunnel*, by the aid of horse flesh, before we could get "annexed" to the *iron*

horse, as some tourists are pleased to term it, at Forty-second street. This having been consummated, away we went in an express train, *whizzy-ty-whiz*, leaving the dirt, mud, and other disagreeable filth which, in consequence of misgovernment attributable to our city fathers, abounds in Gotham, not omitting the *genus homo*, and dashing along through its suburbs, thickly bestudded with the shanties of squatters of almost every nation of the world, we were soon far away on our journey.

The first impression which particularly forced itself upon our mind was the sombre hue of the forest, as it "in its autumn beauty stood," colored by the icy hand of Mr. Frost. An inordinate lover of nature in its *greenness* ourself, yet we could scarce avoid exclaiming with Bryant:

"The summer tresses of the trees are gone,
The woods of autumn all around our vale
Have put their glory on.

"The mountains that infold,
In their wide sweep, the color'd landscape round,
Seem groups of giant kings in purple and in gold,
That guard the enchanted ground."

Could it be possible, thought we, and is winter thus near?

Away, away we drive! at one moment apparently about to pitch into somebody's castle, and the next dashing across a stream—no stopping "according to law," to see if we may do so with impunity, until we reached the old and pleasant village of Stamford, Conn., where, in the two manufactories which grace the place, and add activity to its industry, we have some twenty-five patrons to our new enterprise. From this point, where we stopped to wood and water, our course was directed to Bridgeport, 58 miles from our office, which were successfully traversed in 2¼ hours. This trip took us directly across the site where formerly stood the country schoolhouse in which we, when a "young idea," were "taught to shoot"—to the very doors where our infantile days were passed—to the very places where, in our mind's eye, though distant the scene, we can see the exact spot where is placed a rock, where once, if not yet, stood a flower, a bush, a tree, and around which objects gather associations which length of time can never efface nor change ever drown. We never put our feet into this State without feeling that "it is Connecticut, our own," without saying of her sons, with Halleck:

"They love their land because it is their own,
And scorn to give out other reasons why,
Would shake hands with a king upon his throne,
And think it kindness to his majesty.
A stubborn race, fearing and flattering none,
Such are they nurtured, such they live and die,
All but a few apostates, who are meddling
With merchandise, pounds, shillings, pence and—peddling,

"Or wandering through the Southern countries, teaching
The A, B, C, from 'Webster's Spelling Book.'
Gallant and godly, making love and preaching."

By the way, the mention of "Webster's Spelling Book" brings to our mind a little circumstance which occurred in a recent visit to our friends in this very State. Observing in the hands of a youthful niece a spelling book, we had the curiosity to examine it. The result was, we found the same *old institution*, "the spelling book" we were accustomed to make "dog's ears" in nearly fifty years ago, still in use. After this, who will deny that Connecticut is not legitimately entitled to the designation, "a land of steady habits?"

Setting out to tell our readers something about the craft "down East," we find we have deviated from our original design, carried away by that affection of the heart which our gifted poetess, "Lua Delinn," tells us makes

—— "his native home the desert, even to the beast of prey."

Well, arrived in the city of Bridgeport, our first business was to call on our friends, Messrs. Smith and Barlows, of the Bending Works, who, we doubt not, are ready to *bend* for "all the world and the rest of mankind," not omitting our friends in "the Jarseys." *En passant*, should any of our friends want a first-rate article of "bent-stuff," they cannot do better than to leave their orders with this firm. We have tried them some years, and find them "about right." We next called, successively, upon the Spring Perch Company, our friend Mr. Boston, of the Lace Company, and others, whose advertisements will be found in our columns. At the manufactory of "the Tomlinson Light Carriage Company" we found our worthy friend Mr. Cooper, the foreman, under whose guidance we were shown through their establishment, and found—as heretofore they have done—they were still making the finest kind of work. Mr. Cooper having previously sent us in a large club of subscribers, *with the cash*, increased our indebtedness to him by his assurance of continued exertion in behalf of the Magazine.

Dropping in upon our friends of "the Tomlinson Spring and Axle Company," we found its worthy Treasurer, Mr. Ferguson, as usual, "busy as a bee," and as smiling as "a basket of chips." *May his shadow never be less!* Under his pilotage we had an opportunity of examining one of the most perfect workshops of the kind it has been our fortune to see. It will be in the recollection of many of our readers that this firm was last winter burnt out, but, Phœnix-like, from the ashes of their former establishment has arisen the fine building now standing on its former site, extending three hundred feet, fronting on Pacific street, and nearly as far in depth. With an engine of fifty-five horse-power, manufactured by the Pacific Company, of the same city, with numerous large and heavy shears, for cutting up the steel into suitable lengths, improved drills for expediting labor, and punches which ignore drills altogether, and ovens, of the most approved construction, in which to soften steel for working, and which is imported directly from England by the Company, and, above all, the ingeniously ventilated roof, which, as if by magic, is opened or closed at the pulling of a cord, letting out all offensive gases

detrimental to the health of the artisan, and from fifty to ninety hands employed, we will venture to say they can *spoil* more steel bars, and make more good springs, than any other establishment *that does not make more than they do.* In this same establishment is made—don't forget how modest we are—the only "real, genuine, original," and *authorized* Stratton's Improved Mail Patent Axle! Our friends, who are ambitious to get the best Coach-Maker's Magazine which three dollars will command, will not fail to order the *genuine* "Stratton's Improved" from this manufactory, for, in so doing, they will be lending "material aid" (as we receive a percentage on all made here) towards putting down "humbugs," of every kind, and getting for themselves *more* than their money is worth. Ahem! Will this do, Mr. Ferguson?

Having consumed the day in calls that might by enumeration only weary the reader, in the evening we, in company with a friend, paid a social visit to our worthy contributor, Mr. Irving and family, which passed away in pleasant chat. In the April issue of our "*cidevant* associate," out West, "now caved in," great stress was laid upon the valuable services of "our assistant, Mr. Irving." We learned from the lips of that gentleman that his valuable services of some thirty drafts, etc., were "left on the square," without his ever getting the first "red." The reader will, no doubt, be surprised to learn that the great splutter, in the shape of letters, purporting to be communicated from Bridgeport and some other places, libeling "the traitors," were sheer fabrications—a humbug—like everything else emanating from the same source. We have felt ourself compelled thus to notice "*the thing*," who, to reach his own ends, manufactured an "Extra," of bad grammar, and worse rhetoric, and crammed it with more *manufactured falsehoods* than are necessary to make the thing a curiosity for the next edition of D'Israeli. The reader will forgive us for alluding to this thing in this connection, but justice to our own character demands that our libeler should be placed before the world in his naked deformity. Those of our readers who wish to see the *English* of the editor alluded to, and which we have *in pickle* in our office, are invited to give us a call. They will find that his *whole-cloth* falsehoods were engendered by our refusal to "adopt" his, at the time, still-born progeny, or have anything to do, more than circumstances obliged us to have, with its *unnatural* parent.

In our next we shall notice our visit to New Haven and elsewhere.

THE SOCIETY AGITATION.

On page 132 will be found an article from an enthusiastic painter, who would appear to confine his ambition to the formation of "a society of carriage-painters, or, indeed, all painters;" and, from the tenor of his letter, we infer he would not exclude the bosses. In this respect he may be termed liberal. As to that laboratory and his "competent chemist," we are not sanguine of ever seeing that established, nor do we expect to see any great improvement as the consequences of one's puzzling his cranium in order to test "a new method of procedure in striping," etc. In this connection we also give another letter from a gentleman in a different branch of the business, who appears to take another view of matters, and goes in for a society, which, if not entirely antagonistical to the bosses, yet, would seem to exclude them from its deliberations. He is particularly severe on the getters-up of cheap work, and probably would include among them that class which our Gallic cotemporary, the *redacteur-en-chef* of the *Mercure Universel*, denominates "adventurous *negotiants*," who, he says, having tried their speculations in Europe, and failed, have gone and carried *mercantilism* "to the oriental banks of the Mississippi;" or, in other words, those who, although not practical mechanics, are yet found in the business. But hear our correspondent.

BRIDGEPORT, Conn., Nov. 2d, 1858.

MR. EDITOR—Dear Sir: In your August Number was published an article on the United Kingdom Society of Coach-makers, and I certainly was expecting to see more about it in the next issue, in the shape of a proposition, from some of your intelligent readers, to have such a society started here for the protection of employer and employed; but it seems as if the American mechanics did not appreciate such a thing, or it may be they know so little about the working of such an institution that they have not seriously considered the matter. I believe there is only one trade in the United States that can say (*with credit to themselves*) that they have a society fully established, and that is the hatters' society. I think it is a great slur on the mechanics here, and shows a great want of intelligence; for there is no man, that will give it a mature consideration, but would pronounce it a benefit to the craft, and be hailed with pleasure by all well-meaning and honest employers. What I mean by that is, an employer that is inclined to give a fair price for labor, and employ none but those entitled to employment in the trade, and none but those that can do their work in a workmanlike manner. This would benefit the honest employer, by fixing a standard price for labor. I tell you, sir, it would be the means of destroying the ruinous competition that at present exists in the trade. A man that is inclined to get up a good class of work, and pay a fair price for labor, is not allowed to do so, by the competition of his neighbor, who hires the cheapest and greenest kind of help, and uses the poorest kind of stock, for the sake of selling cheap, and glutting the market with an inferior article, taking the place of work that should have the preference, and giving the consumers the benefit of the sweat and labor of the poor workingman, who, indeed, is needlessly trampled on in a great many instances.

It is time for something to be done, when those inconsiderate manufacturers of cheap work are beginning to dictate how a man is to live, what he *must* eat and drink, and how he *must* prepare for hard times, by leaving a portion of his weekly earnings in their hands. Now, is there

one that cannot see the drift of such petty tyranny? Woeful times, indeed, that an intelligent mechanic is not able to take care of his family, and, when his hard day's work is done, he cannot go home and enjoy the comforts of life and the best of the land, if he chooses, and for whom it was intended by our Heavenly Father, and not for knaves and idlers.

I hope to see some intelligent man, that wants to immortalize his name, and confer a lasting benefit on all concerned in the carriage-trade, start a plan for working a society, at which there has been an attempt made once before, but which proved lamentably abortive, on account of depression in trade, which caused the leaders to disperse, to find employment elsewhere; but we hope to see it started again. More fortunate efforts to better our condition will be made by coöperative measures on the part of our intelligent mechanics; for it is an incontrovertible fact, that working men everywhere, these last few years, have made great advances in knowledge, and they are rapidly arriving at a position in which they can and will demand their rights in a body, under the banner of one brotherhood, and, by its power to crush the fell tyrant, competition (or the striving of one man against his fellow-man for his daily bread) will cease to be regarded as a natural law. The society movement appeals to some of the best instincts of our nature, when it urges the need of more mutual help, and less antagonism between man and man, encouraging the morals of Christianity, and the best aspirations of human nature. J. I.

We have admitted both these articles, as being leading, in a spirit of liberality which, we think, ought ever to characterize the conductor of a public journal, in the hope that, by an interchange of opinions, some good may come of it. *Audi alteram partem* being a part of our creed, and, in the same spirit, our columns are open to the other side of the question. At the same time, we reserve the right to ourself of *tempering* such articles as may offer, which would appear too personal, with an expunging pen. We make this offer with no sanguine expectations that much good will be accomplished, or the evils complained of remedied; but, perhaps, it may serve as a good medium through which to discharge the pent-up *gases* which are apt to gather in the heads of some individuals, and which are not likely to injure any one when set free.

With all deference to the opinions of our respected correspondents, we would suggest, that any organization, which aims to advance the interests of the employed to the neglect of the employer, must, in its very nature, prove a failure. The interests of both parties are so indissolubly united, that a divorce, on any grounds, must terminate disastrously. Such an organization can never thrive in this country, nor, indeed, in any other. We have seen the experiment tried in this city, and a few months sufficed to dissolve its unnatural tendencies. We allude to "the Painters' Society" started some ten years since, with a president, then a journeyman, now "a boss" himself, and who, as a self-arrogated dictator, set up to dictate to the shops the precise number of apprentices one must take (if any), and just how many journeymen they must be *seasoned* with, or none of "the society men" would be permitted to work therein, with other equally crude and absurd tyrannical notions, which were offensive to any high-minded republican, and which no man in his senses, who is worthy of the name, could, in justice to his personal liberty, submit to.

If any society of American coach-makers is ever formed, with expectations that it will prosper, it must be done in a spirit of mutual concessions, and with a proper regard to the laws of *meum* and *tuum*, or, in other words, it must be founded upon principles that look to the interests of both bosses and journeymen—which admit that the interests of one party are identical with those of the other—divested of all those petty jealousies which have heretofore marked the society proceeding, and proved its annihilation.

The United Kingdom Society, in England, to which a former correspondent alluded in this volume (see on page 59), is based upon the very principles which we advocate, and, in union and harmony, labors to promote the interests of the entire craft. We are not particularly certain of the fact, but we are inclined to believe that it has accomplished its design, in maintaining remunerative prices to the employer and the employé, and contributed, in a great measure, to promote the "social" affections in the hearts of its brotherhood—an element which is strikingly deficient among us in this country.

To maintain its efficiency, its organization should be general, which, we fear, with our diversified opinions and diversified nationalities, could never be effected. Unless it were so, matters would continue as now, when, often, a respectable manufactory has to contend with the competition of some "wood butcher," who has squatted down in its vicinity, and is ready to put a spoke into a wheel for fifteen cents, or do any other repairing at the same starvation prices. It may be very true that this class do not *actually* starve (perhaps it would be well if they only did), and why? Because they are content to put up with a small show of civilization, and are satisfied to live on the coarsest kind of "fodder," with expenses to match. It is really discouraging to a respectable mechanic to find himself compelled to compete with this class, who are constantly glutting the market with manufactures *only made to sell*, and whose customers are that class of fools who, if they, when they ride in their apologies for a carriage, should, on the first trial, break their limbs, yet would be no great loss to the world. Having thus given vent to our feelings with these remarks, we, for the present, await the issues of our correspondents' agitations.

THE GEOMETRY OF CARRIAGE ARCHITECTURE.

THE article which for two months has appeared under the above head, having been loudly called for by our

patrons, will be continued regularly until its completion. The gentleman who has furnished it is a workman in whom our readers may place the utmost confidence, and they may rest assured that, whatever interested body-makers may say to the contrary, the rule is correctly given. Anticipating misrepresentation and other unfair measures from those who are after the thirty pieces of silver, the author sends us the following caution, which, but for an oversight on the part of the compositor, would have appeared at the end of the article, on page 126 :

MR. EDITOR :—It is to be hoped that this will appear intelligible to the class it is intended for, and that they will not be deceived by designing pedants, who will abuse, criticise, and censure a work like this, for the sake of lining their own pockets out of the small earnings of the uninitiated. It is all well enough to pay for information legitimately given, but I protest against paying for imposition.

An illustration of my sentiment will not be amiss in this case, which took place under my own observation. A young man was working in a shop under instructions, for which he had to build work at much reduced prices, where the foreman (one of the class above-mentioned), although paid a good salary for his services by the proprietor, undertook to teach this young man, in working hours, the so-called French Rule, for which he charged him the price of the job he gave instructions on—about sixty dollars—and had it placed to his own account. Now, I want to know if you don't agree with me in condemning such an imposition on the employer and the employed. I am glad to say such a thing did not happen in Connecticut.

EYES RIGHT!

SOME military wag—probably a member of the 8th Regiment—who feels that his military pride has *been wounded* by the superior neatness and order with which Col. Vosburgh, of the 71st, has arranged his camp for the "Staten Island war," gets off the following humorous order :—

MILITARY NOTICE.

CAMP WASHINGTON, OCT. 9, 1858.

Order No. 2,341, *for the Year* 1858.

GRAND ARMY OF OCCUPATION, ATTENTION!

The Camp is now arranged according to Army Encampments; heretofore the back was towards the North, when it should be towards the South. When it was first pitched, Scott was used as authority, but such trashy books as Scott do not suit us. It is now in perfect order, and so are we. We therefore GIVE NOTICE that

"He who dares this Camp misplace,
Must meet Bombastes face to face."

BY ORDER OF

BREVET-GENERAL BOM.

TO OUR SUBSCRIBERS.—The paper, in a portion of our November number, was not as good as our contract with our printers demanded. No one can regret this more than the publisher, as he pays for his work as soon as it is performed. We shall, therefore, not allow our kind patrons to be imposed upon, in this respect, again. It is our intention to furnish the public with a book, such as has never, heretofore, been presented to a mechanical body, either in this, or any other section of country.

TO OUR FRIENDS IN THE COUNTRY.

THERE are, doubtless, many of our patrons who, when they order circulars, showbills, &c., of their business printed, see the importance of having something appropriate with which to ornament the heads thereof, in order to make them attract the attention of the public. To such, we have concluded to furnish an electrotype of any draft we have already, or may hereafter publish in this Magazine, and from which they may select—the buggies for $2.00, the carriages for $2.50—the money to be forwarded with the order. We can fill such orders at two days' notice, and the cut will be serviceable for years, and cost you but a trifle compared with the expense we were at, in getting them up, originally. To such as prefer our printing their orders here, terms will be made known on application, and sending us the details of what is needed. In this latter case we make no extra charge for the use of the cuts. All expense of transmission by Express is to be borne by those ordering cuts or printing, on its delivery to them.

LOOK OUT.—There is a fellow who, for more than a year, has been practicing the confidence game in this city, especially among carriage manufacturers, whom he has swindled by buying on time, and giving *his* note for a few days. The fellow "came it" over us about a year ago, since which time we have heard of his *operations* very frequently. Two of "the Smith family" have left *their* cards with us, which can be seen at our office by any person curious enough to look at the beauties. They may interest those who contemplate *selling on time*, and profit those who take a look at *the cards* before they *do* sell.

For the New York Coach-maker's Magazine.

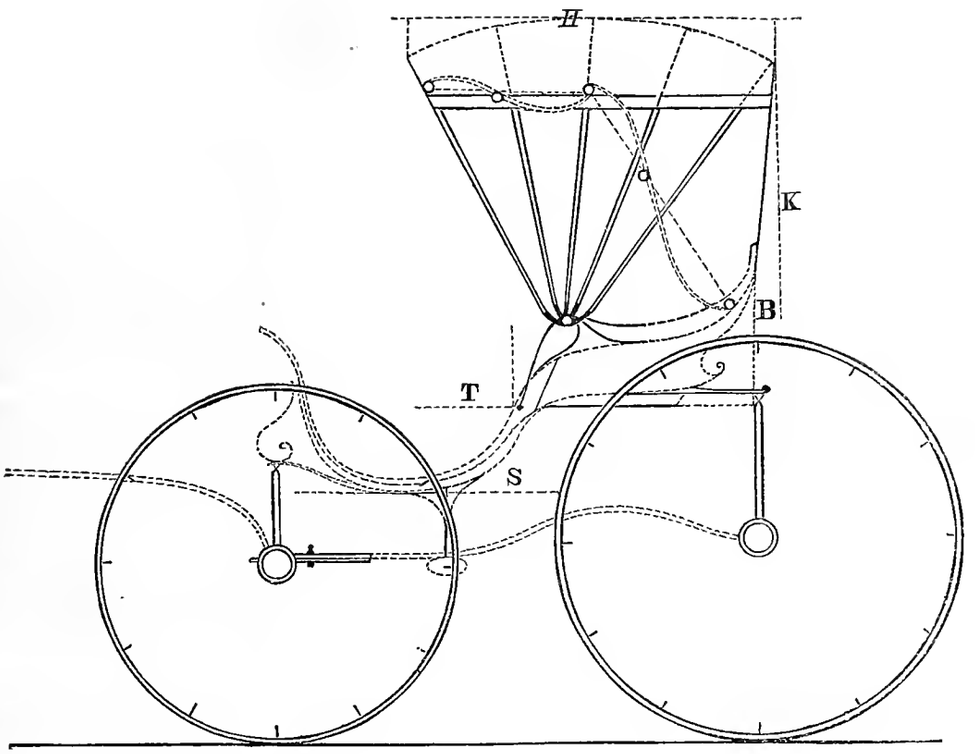
SCALE DRAFTING AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, OF BRIDGEPORT, CONN.

(*Continued from page* 118.)

LESSON THIRD.

IN drafting a carriage of the kind described, commence by drawing the top horizontal line, H, and the top back-line, K, at right angles with it; then from line H, which is the outside top of lines, mark 3 ft. 9½ inches, and draw your seat-line, T; from the seat-line mark 11 inches, and draw your bottom-line, S; now from line K mark a parallel line, B, 3 inches from it, and 18 inches high from the seat. This is the back body-line. Line K is the extremity of the back bow, which overhangs the back-line 3 inches. Next mark from line B, on the seat, 2 ft. 4 in., which is the depth from the back-line to the front of the seat. This is more depth than is necessary for ordinary buggies, but, for this style of carriage there is a good deal of space required, to give it an easy and graceful sweep, and, when trimmed with a good full back, there is none too much room for comfort. From the front of the seat mark off 19 inches



back, which is the depth of the seat. From the front of the seat, and on a straight line, mark 24 inches to the dash or bracket-front, which you let run about 8 inches higher than the seat-line. Now you can commence and trace out the form of the body within the prescribed limits. About the centre of the quarter, let it be about 7 inches deep, taking out of that 1½ inch for the rocker. The length of the top requires to be about 3 ft. 6 inches. In forming the top curve, mark from the straight line, H, in front, 5 inches, and on the back, 6 inches, which leaves the curve at the back bow an inch lower than the front. When the body is traced out you can calculate for the remaining gear in the following manner: draw a perpendicular line 2 ft. 5 inches from the front of the seat, for the centre of the hind wheel. Next draw a straight loop from the body behind till it intersects the perpendicular line; then calculate 1½ inch for the spring-bar (12 inches deep for the spring, and 3 inches deep for the axle-bed), with ½ inch for the half of the axle, making in all 17 inches from the hind loop to the centre of the wheel, from which point you describe a four-foot circle. Now you can draw the ground or base line, from which you calculate for the front. You will have to use a deep axle-bed in front, in order to get a reasonable depth of spring. The diagram demonstrates the utility of Haussknecht's patent horizontal, or fifth wheel—it is to enable the front wheel to lock back of the front seat-line, giving more depth for the wheel to turn under the body. There is no particular rule for drawing the shape of the reach, only to follow the bottom curves of the body as much as practicable, retaining an easy-appearing sweep. It is fully as bad in appearance, as it is detrimental to the carriage, to have a reach too crooked. This top is supported by a stay, forming a pivot-iron to receive the slats. The same pivot also receives the arm, which terminates in a handle to the side of the body. The pivot should be about 9 inches high from the seat.

A NEW HARNESS is described by the New Brunswick (New Jersey) papers, by which invention the ordinary saddle is dispensed with; also, the whipple-tree and breeching. The wagon is controlled by two friction rollers fastened at the end of the shaft-bars. The shafts are held and controlled by two terrets at the hames. The horse can be detached from the carriage in a moment, by means of two spring hooks, arranged at the forward end of the trace, which is convenient at all times, and more especially in case the horse becomes frightened and runs away.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME.

AMERICAN PATENTED INVENTIONS.

October 26.—BRIDLES TO PREVENT HORSES FROM KICKING OR RUNNING AWAY.—John M. Lanier, of Eufaula, Ala.: I do not claim the employment of two bits operating upon one jaw of the horse. Nor do I claim operating one bit by means of two sets of reins.

But I claim the employment of two bits, so arranged with two sets of reins that one bit will operate upon the lower jaw, while the other operates upon the roof of the mouth and upper jaw, the same being combined and operated in the manner and for the purpose specified.

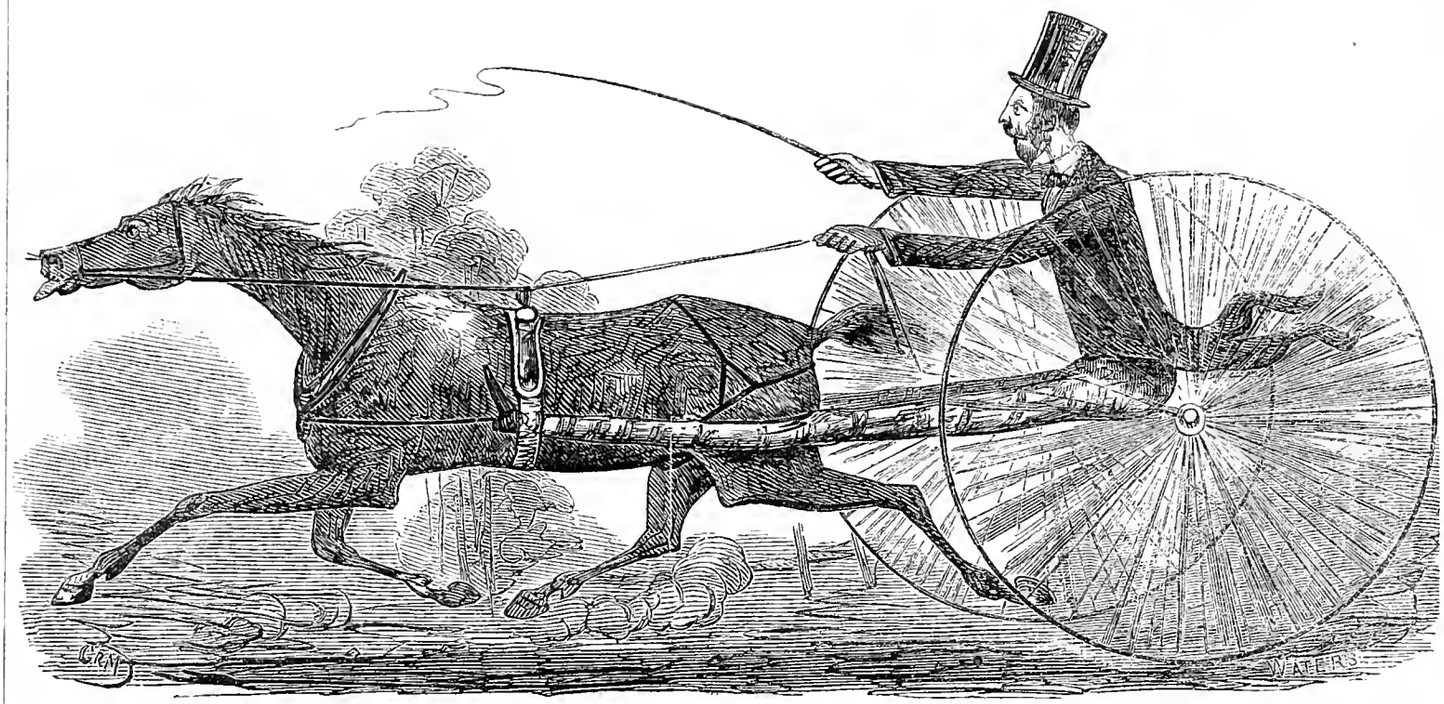
November 2.—TOOL FOR CHAMFERING LEATHER STRAPS.—James Bridger, of Richland, Iowa: I claim the tool described for chamfering and channeling leather straps, as described.

MACHINE FOR CREASING AND BLACKING LEATHER FOR HARNESS.—Adolph Stempel, of Oquaroka, Ill.: I do not claim broadly the employment or use of creasing and embossing rollers, in connection with a pressure roller, for ornamenting and creasing leather, for such device has been previously used.

But I claim the pressure roller, F, and the creasing and embossing rollers, in combination with the color fountains, K L, and felt rolls, M M, the whole being arranged to operate as and for the purpose set forth.

AXLE BOXES.—Henry Howson (Assignor to Isaac B. Wendall and Jacob L. Wendall), of Philadelphia, Pa.: I claim the combination of the box with the bearings, B and B, and retaining keys, C and C; when the interior of the box is arched on the top, when the said arch terminates on each side of the recesses, gg, formed in the sides of the box; when the keys are adapted to fit into the recesses and against the edges of the bearings, and when the several parts are arranged in respect to each other, in the manner and for the purpose set forth.

MACHINE FOR FILING SAWS.—C. Tabor and R. D. Tabor, of Ischua, N. Y.: We claim the use of the file carrier and pressure frame, as set forth, in connection with the carriage, clamping jaws, and revolving platform, constructed and operated as specified.



LIFE SKETCHES.

SCENE FIRST.

IT is very generally admitted, that variety is the spice of life. When abroad visiting our fellow-craftsmen, we find a great deal of humor among them, and, thinking that something of the caricature character would not fail to please, we are induced to commence a series of original sketches in the present Number, which, if acceptable, will be followed by others of a characteristic kind.

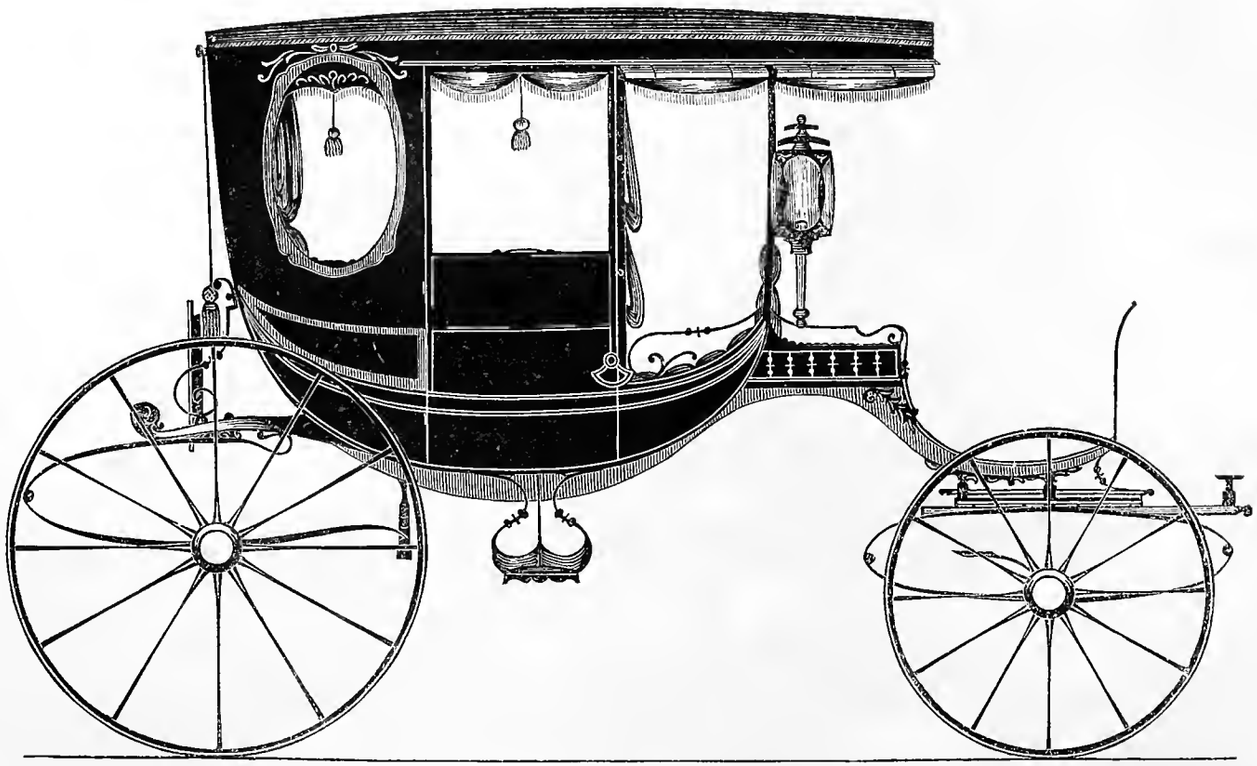
For the present, we shall introduce to your notice Mr. Bill Brazen, the fast young man depicted by our artist in the accompanying illustration, who is supposed to represent "one of a class" that may be seen, on almost any day in the week, standing around the doors of the rum-shops in the vicinity of the Bowery Theatre, staring in the face the passing hoops with consummate impudence. He is "the confidence man," who would make some of our country friends believe (when in town) that he owned "all out doors," but, when in the country, his character is generally taken, by the old rustics, for about what it is worth, as will be seen in the sequel.

For a few years past, when in town, his indulgence in lager bier, whisky-slings, brandy-smashes, and gin-cocktails have so seriously operated upon the financial department of *Master* Billy's pocket, that his pocket-book is very much in the state of an exhausted balloon—collapsed. In this condition the dog-days of the past season found our hero "out of town," for his health, *visiting his uncle*. But "blood will tell." The sight of "a hoss" has stirred up in his mind the recollection of the time when, with the "old man's" team and somebody else's "tin," he raced it on the Bloomingdale road, kicking up a dust and astonishing the natives who have squatted down along the wayside of that celebrated thoroughfare. The low state of his finances would seem to forbid his indulgence in his old sports, "but where there is a will (as Mrs. Partington would say) there is a way;" so, making a virtue of necessity, and *being bound to shine*, and (as *tick* is, for "bloods," in the country, below par,) having provided himself with an old axle-tree and a pair of wheels, and found a nag already under mortgage to the crows, he is seen "*going it*" *on the cheap plan*. His legs would seem to be doing him more service than they ever performed before, except on an occasion of giving *leg-bail* for their owner in a "confidence transaction." This scene shows the manner in which he "*went out*." Our next will show how his *wits* availed him in "*coming in*."

DR. FRANKLIN used to say, that rich widows were the only pieces of second-hand goods that sold at prime cost.

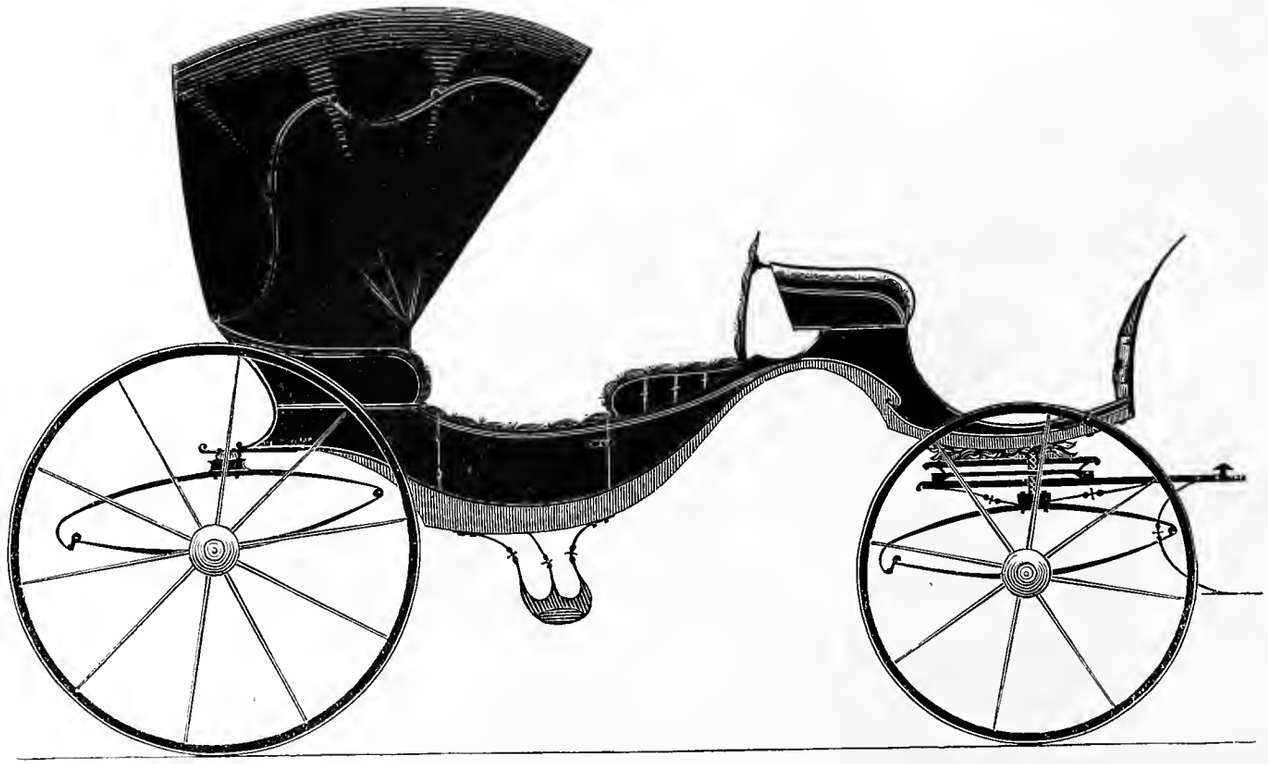
THE following "notice" is said to be posted up in the news-room of a country tavern: "Gentlemen learning to spell are requested to use yesterday's paper."

PRETTY GOOD.—An old lady, living on one of the telegraph lines leading from Louisville, observed some workmen digging a hole near her door. She inquired what it was for. "To put a post in for the telegraph," was the answer. Wild with fury and affright, she incontinently seized her bonnet and ran to her next-door neighbor with the news. "What do you think," she exclaimed, in breathless haste, "they're setting up that *paragraph* right agin my door; and now, I reckon, a body can't spank a child, or scold a hand, or chat with a neighbor, but the plaguey thing 'll be a blabbin' it all over creation! I won't stand it! I'll move right away, where there ain't none of them onnateral fixins."



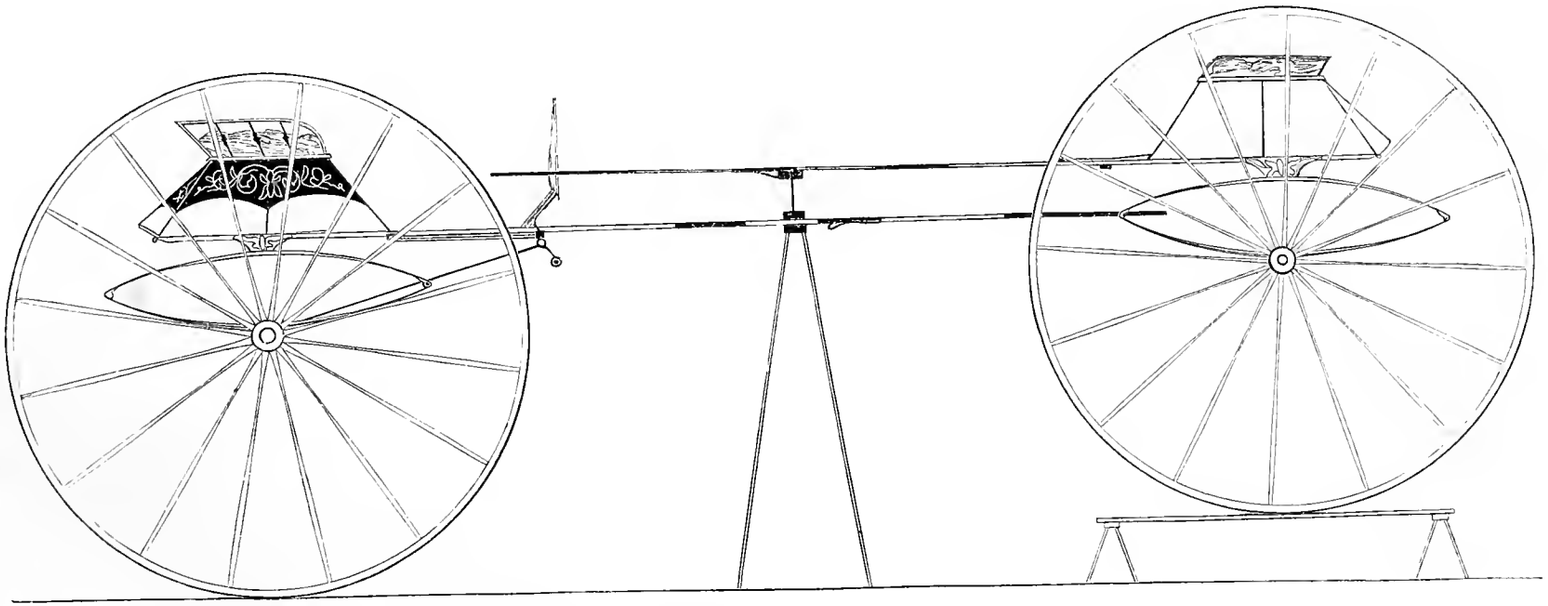
SIX-SEATED ROCKAWAY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 149.



MESSRS. GOOLD & CO.'S BRETT.—½ IN. SCALE.

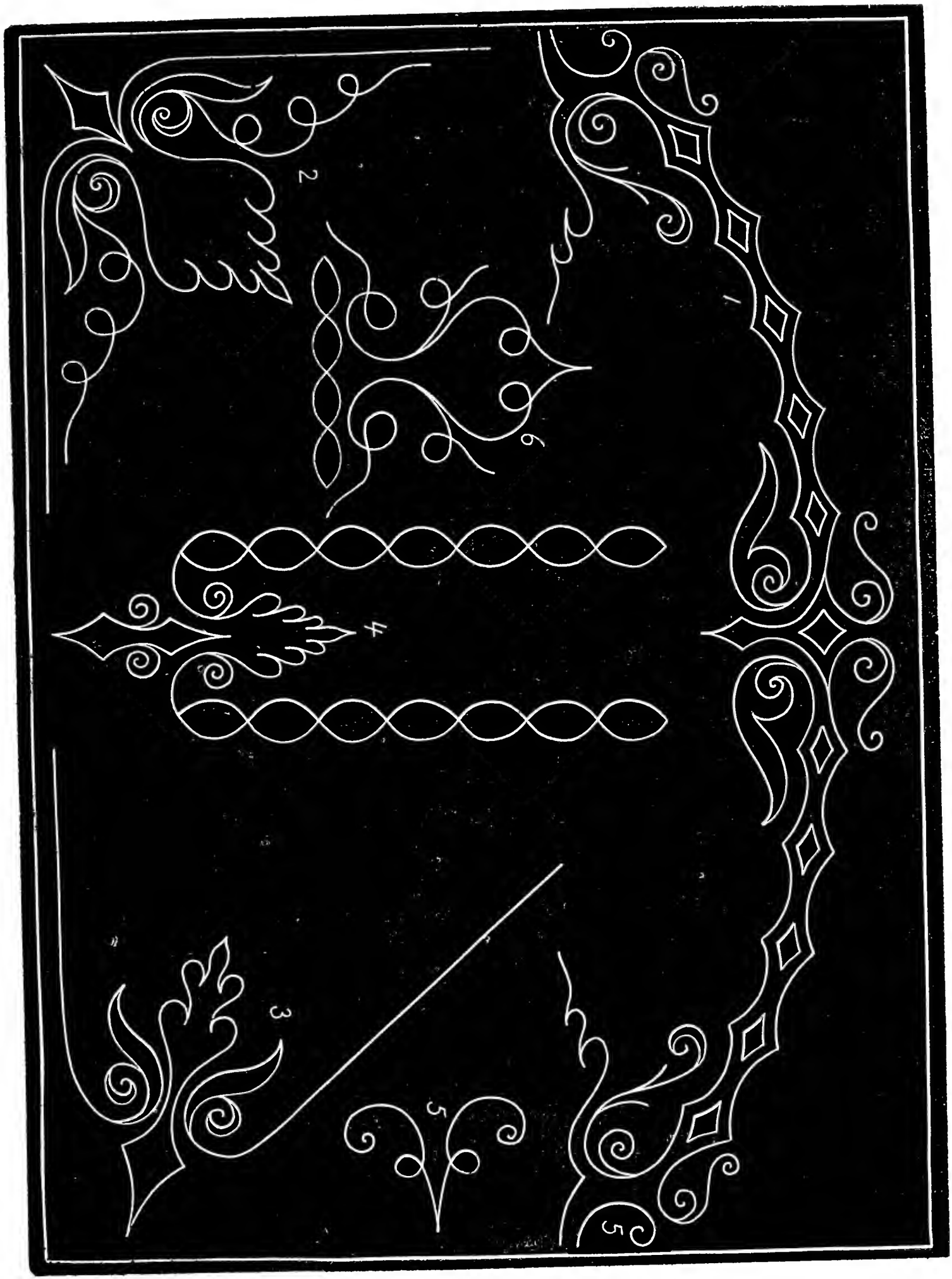
Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 150.



BUSINESS AND TROTTING SULKIES.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 150.

STITCHING PLATE C. FOR JANUARY.



DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, JANUARY, 1859. No. 8.

Miscellaneous Literature.

For the New York Coach-maker's Magazine.

THE THREE-FOLD NATURE OF MAN.

BY CHARLES C. KEYS.

No. IV.

THERE is a purpose for everything, and "a time to every purpose under the heaven."* Knowledge is but of little account if it have not its practical uses, and it is only in view of these, its uses, that such universal currency has been given to the adage—"Knowledge is power." We have been contemplating man as an organized being, possessing a three-fold nature, and richly endowed by his Creator in all the departments of his being. And now, supposing that we know ourselves in these respects, it becomes an important question—to what practical purposes may this knowledge be made to contribute, or what personal improvement or profit may be realized therefrom? Admitting that we are acquainted with our physical structure, and also with our mental and moral nature, it will not be difficult to show that there are imperative and important duties which we owe to ourselves, founded upon these distinct departments of our existence.

And, first, we inquire, what is demanded of us, in view of our physical nature? Our bodies are exceedingly frail, always exposed to danger, and even liable to be injured by the unfriendly influences which surround us in the present life. This is a truth so patent to the most careless observer as to be without novelty, and to have lost its interest, except to serious minds. And yet there are good and valid reasons why we should pause in this discussion for a sufficient time to look this truth in the face.

> "Dangers stand thick through all the ground,
> To push us to the tomb;
> And fierce diseases wait around
> To hurry mortals home."

How is it, we inquire, that we hold on to life by so uncertain a tenure? that the diseases which afflict our humanity are so numerous? and that the average duration of life is so short? Our acquaintance with this subject must have informed us that the preservation of health, and the prolongation of life, and the promotion and maintenance of physical comfort in general, are not matters altogether arbitrary in their causes and dependencies, that they do not result from blind chance, or fickle fortune; but that there are fixed laws and definite arrangements, instituted by the all-wise and infinite Architect of our mortal structure, which control these important interests of life. The same divine hand that whirls the spheres, that directs the sun and moon in their courses, that "binds the sweet influences of Pleiades, and looses the bands of Orion," gives to the human constitution its laws, and clearly indicates in this manner the treatment which it should receive. The laws of life and health, though not quite so obvious as those which God has enacted of a moral nature, may, nevertheless, be determined by a tithe of that care and attention which we bestow upon inferior and less important interests, and may not be violated with impunity, any more than those fundamental and primary rules of human conduct which are contained in the decalogue. "Be sure your sin will find you out" is true in the one case as it is in the other. This world, making all due allowances for the effects of sin, would be comparatively an Eden, and its inhabitants enjoy, in a great degree, an immunity from suffering and disease, were it not for the almost total disregard of nature's laws which is prevalent. It is only, then, by an observance of these laws that we can fulfill, in the highest degree, the purposes of our existence; that we can enjoy health, prolong life to its maximum period, and be gathered to our fathers in a ripe and golden old age, when life is well ended and the work of life is done. To obtain these ends, the proper means must be employed, and it is a duty we owe to ourselves, to use these means for the accomplishment of these ends. The different organs of the system cannot perform their functions without a constant expenditure of vital power, the movement of the machinery, on which life depends, involving more or less the wear and tear, and this necessitating a supply of nutritious aliment by which this waste can be compensated. The laws of life and health require that this nutriment be of suitable quality and in proper degree, neither deficient nor superabundant. And if these laws be ignored, not only ill health, but premature decay and death must be the inevitable result. We are also so constituted

* Prov. 3, 1.

as to require a constant and abundant supply of fresh air for respiration, a poisonous atmosphere being equally deleterious to the system with noxious food; so that, if we habitually confine ourselves to close dwellings and heated rooms, that have not been properly ventilated, we must expect to pay the penalty in colds, influenzas, consumption, or other forms of disease. We may pursue a corresponding line of remark in reference to cleanliness, clothing, exercise, etc., all these requiring attention and care to be constantly and judiciously practiced, in order to maintain either the health and integrity of the body, or the vigor and efficiency of the mind. Such are the conditions of our being, that we are in duty bound to inquire (although such inquiries should not engross our attention), "What shall I eat, and what shall I drink, and wherewithal shall I be clothed?" The body demands our attention, and it must be cared for. Although an inferior part of our nature, yet it is a very important part, and will not brook or excuse our neglect. Some literary men have affected to neglect the body, and some religious men have affected to despise it. But both are to be regarded as in egregious error. While we are not to sink ourselves to the low level of brutes, and delight to wallow in pure sensualism, at the same time a proper share of attention to the wants of our physical nature is imperatively demanded by the laws of our being, and by the circumstances in which we are placed. "Thou shalt not kill," and "Do thyself no harm," are commands obligatory upon us all in reference to whatever may injure health, or destroy life. "In the sweat of thy face shalt thou eat bread," and "Six days shalt thou labor and do all thy work," with equal clearness indicate the great law of physical exercise, upon the observance of which is dependent our enjoyment of life and health. But we have not room on our sheet to pursue the subject further. It remains for the reader to consider, either with or without our aid, the duties which he owes to himself as an intellectual and moral being. We may possibly (although we are not now in circumstances to pledge ourselves) return to the subject in a future number.

For the New York Coach-maker's Magazine.

NED LOWRIE'S COURTSHIP.

BY JAMES SCOTT.

Six or eight of us were seated around the stove in my bachelor quarters one evening, and, for lack of better amusement, each told some story of personal experience or adventure. Some of the yarns were rich, and, for the benefit of those of the "craft" who relish a bit of fun, I have reduced one of them to paper.

"I never was really in love but once!" said Ned Lowrie, sentimentally. "At the time I was overtaken by this dreadful calamity, a small town in the interior of Alabama had the honor of containing my corporeal corporosity; but, as you fellers don't understand anatomical terms, I mean to say that I was staying 'thar.' The establishment in which I was employed stood on the outskirts of the corporation, and was surrounded by neat suburban cottages. The prettiest of them was on the lot adjoining the shop, and in it dwelt the object of my heart's adoration. How shall I describe her! The term handsome is too tame. Pretty wouldn't begin to express half the enchanting beauty—the bewitching loveliness—the peace-destroying charms of my Rebecca Ann!

"Our acquaintance commenced at the pump. (What the mischief are you laughing at?) We of the shop had the right of way to the aforesaid pump, which pump belonged to the mansion above mentioned, and was located on the grounds thereof—excuse the legal phrases, you know I studied law once for two weeks. Well, I went to the *pump* for a bucket of water. Rebecca Ann arrived simultaneously on a similar errand.

"'Allow me, miss, to pump for you,' said, I with an elaborate attempt at French airs.

"'Thank you, sir,' says she, smiling murderously. I say murderously, because the effect was killing.

"I operated on the water-drawing machine in the most graceful manner, handed the bucket to her with a bow which gave me a pain in the spinal column for a month afterwards, and again she thanked me in tones of ravishing sweetness. From that moment I loved—loved with the overflowing, obstacle-surmounting intensity of a heart that never loved before. My passion was reciprocated, and the increased frequency of her visits to the place where first we met proved it. And, oh! how my heart palpitated, and hopes of future bliss danced o'er my heated imagination, when, going for water, I met her. You needn't snicker, I didn't intend a pun.

"For once the course of true love ran smooth. I was invited to call, and I called. By the ghostly light of the pale moon I told her all my hopes and fears—told her that my future weal or woe was in her hands, and in piteous accents implored favor for my suit. Oh! what ecstatic bliss was mine, when, hiding her blushing face under my coat-collar, she murmured, in tones rivaling the poetic lute in softness, 'Ask my pa!'

"The discordant notes of a male shanghai warned us that it was time to part. Our lips met in love's first soul-breathing kiss. The door closed upon her fair form, and I left. Gates were useless—I sailed over the fence, floated home, and was wafted up three flights of stairs, and into bed, by troops of Cupid's fairy attendants. The Ethiopian youth, who blacked my boots, awoke me to consciousness in the morning, by reminding me that there was a balance of two bits due him for services rendered. Breakfast was swallowed with a total disregard to the culinary skill displayed in its preparation. Never before had I hastened to the shop so eagerly—never with such joyous anticipations. I would see *her*—would breathe the same atmosphere, and manipulate the same pump-handle. Who on earth could ask for more?

"I feel like inflicting upon you a philosophical disquisition on the uncertainty of human happiness, but I forbear. The maxim, 'There is many a slip 'twixt the cup and the lip,' will answer the purpose full as well, and save breath.

"Two hours of the morning—they seemed centuries—had passed, and my eyes had not yet been gladdened by a glimpse of her dear form. A large supply of water must have been laid in the night previous; for the morning dew yet lay undisturbed on the horizontal lever constituting the motive power of the hydraulic machine from whence was derived the daily supply of aqueous fluid. (What do I mean! Why, the pump-handle, of course.) Something dreadful must have happened. She was prostrated on a bed of sickness—severe cold—Ayer's pectoral—Brandreth's pills—Snooks' syrup, and so forth. The thought was madness, and the fell demon of despair was already clutching at my heart-strings, when, oh, joy! she appeared

on the front porch. Strangers were with her—strangers of the feminine gender. Country cousins, perhaps. The morning was warm, the porch shady, and a sable maiden of African descent produced chairs, which promptly disappeared 'neath descending avalanches of calico and other dry goods.

"There were six of them, but my eyes beheld but one, and she, sweet girl, was to be mine. Had not her own lips said so? ay, and sealed it, too. I wondered if she was telling them about me. Of course she was. Their eager glances from her to the shop said so, and the new-born feeling within me confirmed it. I must show myself. My plan was soon arranged. There was a body to paint in the shop below. I would descend by the platform stairs, and afford them a sight of the *handsome* affiancée of their friend. Rushing to a stray fragment of looking-glass tacked to the wall, I adjusted my spotted Marsellaise collar—ran my fingers through my hair—pulled off my apron (it didn't look genteel)—seized a keg full of lead color, and sallied forth. With dainty steps I picked my way across the platform, and down the stairs, which terminated in the yard within ten feet of the bevy of femininity. The programme was all arranged ere I started, and, in conformity therewith, when near the bottom of the stairs, I raised my eyes, and, *for the first time*, beheld the ladies. I stopped —elevated my hat *à la mode*—said something, I forget what—started again, and—well, the first thing I remember, my head came in forcible contact with *terra firma*—ditto the keg. Something went all over my face, and into my eyes. I gathered myself up—heard a perfect scream of laughter from the porch—rushed frantically into the 'wood-shop'—was greeted with a similar burst of heartless merriment—wiped my eyes on my shirt-sleeve—shot up stairs to the paint-shop—reached the aforementioned piece of glass, and—found I had painted my own countenance instead of the buggy-body. Lead color predominated from the roots of my hair down to my boots. I left *that* town at an hour when graves are supposed to yawn, and sheeted ghosts to perambulate around the abodes of men—have never seen Rebecca Ann since, and sincerely hope I never may! Boys, let's go to bed; it's getting late."

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER VIII.

The mailed horses and scythe-chariots of an early age—The revolution effected by Cyrus in the construction of chariots—The four-perch chariot of Abradatus, and the golden corslet of Panthea—An eight-perch chariot drawn by oxen—The success of the scythe-chariots, at first, wins for them a world-wide renown—Subsequently, the Romans treated them with contempt and derision, the improvements in military tactics rendering them ineffectual.

Quod tempore antiquum videtur, id incongruitate est maxime novum.

PREVIOUS to the introduction of cavalry, in Homer's time, some of the horses harnessed to the chariot, when going to battle, were partially mailed, and sometimes these horses were two, sometimes four, and even as high as six among some nations. The two inside only were employed in drawing the car, the two outside serving for the purpose merely of increasing the force of an onset. Some of these chariots had a sharp spike projecting from the end of the pole, and two sharp and curved scythes set in the axle, where the car was mounted on two wheels. As in the case in our illustration, where the vehicle was four-wheeled, these horrid and formidable instruments of death were doubled. They received the name of scythe-chariots. These battle-cars were mostly with only two wheels, four being more rarely employed. In his conquest of India, Alexander employed elephants and camels to draw his chariots.

Probably the greatest revolution ever made in the con-

AN ANCIENT SCYTHE-CHARIOT.—*From a Rare Print.*

struction and use of chariots, was that effected by Cyrus, the Persian, at the very moment of his contemplated expedition against the city of Sardis, a dependency of the Assyrian empire.* Many of these, which we are about to describe in detail, were fitted up from the old chariots which had been captured in his previous battles, and others were constructed out of such material as he could lay his hands upon. Xenophon, to whom we are indebted for the most of what follows, and who writes from personal knowledge, tells us that the Trojan method of using chariots, as formerly practiced, and as still used by the Cyrenians, Medes, Syrians, Arabians, and other Asiatic nations, he utterly abolished. His opinion was that, formerly, the very best of the men—those which probably constituted the chief strength of the army—mounted in the chariots, had, in fact, only acted the part of skirmishers at a distance, and had contributed but very little to the obtaining of a victory. He argued that three hundred chariots would require three hundred combatants, requiring twelve hundred horses, demanding a driver for each chariot, whose skill was entirely lost in guiding the chariot, without contributing in the least towards obtaining a victory over an enemy.

The chariots invented by the Persian king were provided with wheels of great strength, so as not to be easily broken, and with axletrees that were very long, because, if made very broad, they would not so easily be overturned. The box for the driver he had made like a turret, and with strong pieces of timber; and the highest of these boxes reached up to the elbows of the drivers, that, reaching

* Although, in conformity with this account of Xenophon, the general voice of the world has accorded the scythe-chariots mentioned to Cyrus, yet we think it proper to state that Diodorus Siculus, quoting from Ctesias, says that Ninus had a great number of them in use in his expedition against the Bactrians, at a much earlier period. They were certainly, however, not used at the siege of Troy.—ED.

over these boxes, they could drive the horses. These drivers were covered, all but their eyes, with armor. To the axletrees, at the ends, he attached steel scythes about two feet and a half long; and below, under the axletrees, he fixed others, pointing to the ground, intending with these chariots to break in on the enemy.

Abradatus, king of the Susians, who had revolted from the Assyrian government and joined his fortunes with those of Cyrus, observing his leader engaged in his newly-invented chariots, followed suit, with one hundred for his own service, mounted on one of which he intended to lead the van. This intended for his own personal use he framed with four perches, and with eight horses, in this distancing our three-perch cotemporaries several centuries. Panthea, his wife, having provided him with a golden corslet, head and arm pieces, and his horses with brass defenses, no doubt, he looked upon himself as invincible; although, as the sequel showed, a fall from this chariot proved his death.

Seeing Abradatus's four-perch chariot, Cyrus considered that it might be advantageous to make one with eight, so as to draw the lower frame of his machine with eight yoke of oxen. This engine of war, together with its wheels, was upwards of fifteen feet from the ground. On these frames he made open spaces to move about in, and strong defenses, and on each of these turrets he mounted twenty men. When he had completed these turrets, and tested their draught by experiment with eight yoke of oxen, with the twenty men thereon mounted, he found it could be drawn with more ease than a single yoke had formerly drawn the common baggage weight; for the weight of baggage was about five and twenty talents (about 1,425 pounds) to each yoke, but the draught of a turret, whose wooden frame was as broad as a tragic stage, together with twenty men and their arms, amounted but to fifteen talents (855 pounds) to each yoke. Some of these chariots were made so high, that when Abradatus was about to get into his, he mounted "by the door of the driver's seat, and after he had got up, when the driver shut the door of the seat, Panthea, who had no other way to salute him, kissed the seat of the chariot."

Afterwards, these scythe-chariots were tried in an encounter with the Egyptian chariots, in the army of Crœsus. By the rapid movements of the horses, the Egyptian vehicles were overturned, and, being cut to pieces, both men, arms, horses and wheels, and whatever these scythes came in contact with, was destroyed, throwing everything into inexpressible confusion. But poor Abradatus, being excessively jolted, in passing over the heaps of all kinds, which his bravery had caused, fell, with others of his party, and were cut down and killed by his own instruments, in the confusion which followed. This battle, although Cyrus lost his faithful ally therein, yet gained for his scythe-chariots such a world-wide fame that they were used by his successors for many years.

Subsequently, these scythe-chariots were looked upon as being comparatively of very little use. Artaxerxes found them so at the battle of Cunaxa. At the battle of Arbela, Darius having placed one hundred of these chariots, armed with scythes, before the left wing of his army, soon found them to be of very little effect, his opponent, Alexander, who was upon the right of his own army, and consquently opposite to these chariots, having ordered his men to divide when they saw them coming. Acting upon his orders, they were, by this manœuvre, rendered ineffectual. Afterwards, at the battle of Thurium, where Sylla defeated Archelaus, one of the generals of Mithridates, the soldiers in the Roman army treated these scythe-chariots with such great contempt that, after the first which were sent against them had passed without doing them any injury, as though they had but merely been spectators in a chariot race, they treated these scythe-chariots with derision, and loudly cried out for the enemy to send on more.

The fine illustration which accompanies this article is taken from a very rare and costly work, which has never been published in this country. We take very great pleasure in being the first to introduce it to our readers, and, although at a heavy expense, we trust it will be appreciated, and prove instructive. S.

For the New York Coach-maker's Magazine.

STRAIGHTENING CROOKED TIMBER.

"Now, let the bow-bent forms relax their bows;
Uneven corners range in even rows;
The sprung and crooked be made straight and true;
The warped and winding take their forms anew."—EDWARDS.

TIMBER often becomes crooked from various causes; one of the most common of which is, its inclination to spring, when it is split or sawed out from the log. On this subject, I penned a few thoughts on page 124 of this volume, which should be read in connection with this article. Another way in which timber becomes crooked is, by warping when it is being seasoned, or drying after having been wet.

The value of almost all kinds of timber is, almost always, more or less, enhanced by its straightness, and diminished in proportion to its crookedness. A stick of timber may be of the very first quality and, at the same time, of very little value, except for certain purposes, on account of its crookedness, from warping or springing. It frequently occurs, that boards and plank are so warped and sprung that they are almost worthless; but, if they were straight, their value would be increased, for certain purposes, many-fold. To straighten some pieces of timber, is looked upon, by many, as almost an impossibility. There may be a wide oak plank, for instance, nearly as hard and tough as horn, so badly warped that it is unfit for most purposes. How came it to warp to such an extent? Why, in seasoning, one side contracted more than the other. But, it can be made as straight as it was when first sawed from the log. How? How do we give a circular form to one piece of straight timber and a warped form to another straight piece, and a twisted or spiral form to another piece? Simply, by filling the pores of the wood with hot water or steam, sufficient to weaken the elasticity and solidity, while we put the timber in the shape desired. If, now, we steam a crooked piece of timber, and hold it in a straight position, until it becomes dry, it will remain so. If we wish to straighten a plank or a board, for instance, after it has been seasoned, sometimes it may be done, by exposing it to the rays of the sun, for a day or two, with the convex side up. Sometimes, it is necessary to wet the concave side a little, before it can be straightened. But, in order to straighten it, when it may be warped and sprung—and twisting too—the neatest and most expeditious way would be, to steam it a little, and then, while it is yet soft, fasten it in a straight position until it is thoroughly dry. This may be done by laying the plank on a level surface—on the floor, for instance, and then, by setting a few shores on it, which extend to the timbers above, and are driven under firmly. Short pieces of plank and boards may be

straightened at the stove, by heating the convex side, and, if necessary, by wetting the concave side a little. Sometimes, by laying a plank or board on the wet ground, with the concave side down, and allowing the sun to shine upon it during the day, it will become straight; and, if put under shelter, immediately, it will usually remain straight. A slab-board, or plank, and a heart-board, or plank, are, almost always, stubborn things to keep straight, unless worked or dressed true. When a log is sawed directly through the heart, the board or plank next to the heart, on each side of it, will be warped, more or less, after seasoning; and the heart-side will be convex, even when seasoned under shelter, unless it is held straight while seasoning. And, even then, such boards are apt to warp, after they have been dressed out straight and worked up, if they are at all exposed to the influences of the weather, which affects the expansion and contraction of timber.

When one has a lot of plank-boards, scantling, wagon tongues, or such like, which are seasoned, and are sprung and warped, should it be necessary to straighten them, they may be laid in water for a few days, or until they are thoroughly saturated, when many of them will have assumed a straight form, and all of them will be so flexible, that if they are piled up straight, with sticks between each piece and some heavy body placed on the pile, they will remain straight after they have become thoroughly dry. When scantling or wagon tongues are treated in this manner, they must be stuck up straight, sideways, as well as up and down. This may be done by making a sort of crib, formed by driving stakes into the ground, or by boring two-inch holes in sticks of timber, and inserting stakes made of hard wood for the side stakes. For scantling, twelve feet in length, there should be, at least, four tiers of sticks between them, and as many stakes on each side. Now, after the foundation or bed sticks are laid, with their surfaces in a straight line, lay on a tier of scantling, with their bowing side downwards, and put sticks of a uniform thickness between them, sideways, and see that they are all straight one way. After one tier is completed, lay on this tier narrow strips of boards, about two feet apart, and then put on another tier of scantling, with their bows upwards, driving sticks between them to keep them apart, sideways. Now some more strips of boards between the tiers, and then another tier, with the concave side down, and the next tier with it up. After the pile is completed, lay on timber or stones, or anything that will bring the several tiers down straight. It will require no more superincumbent pressure to straighten a half a dozen tiers than it will to straighten one.

In this way, timber for building, which has sprung and warped very much, may be made entirely straight. Joists and scantling for rafters, and such like, if so crooked that they cannot be used, may be laid in water for a few days, and straightened under pressure, when they will subserve as good a purpose as if they had never been allowed to become crooked.

Valuable timber should never be allowed to season while it is in a crooked form. As soon as it is sawed out, if it is inclined, it will immediately commence springing, and warping and twisting, unless held in a straight position. The most firm, tenacious and elastic timber is, usually, the most liable to spring. Such is the timber generally sawed into carriage stuff, or into stuff for some kinds of farming implements, and he, who knows and appreciates the value of straight timber, will attend to sticking it up as soon as it is sawed. The neatest and most expeditious manner of sticking up a log, that has been sawed into plank, is to haul it from the mill to the place where it is to be stuck up, without splitting them apart at the "stubshot" end, and driving sticks between each plank, the thickness of the saw-kerf. Plank can be seasoned more straight in this manner and with less labor than in any other way. When a log is sawed into sticks for axle-trees, or into tongues, or anything else, if the outside tiers are sprung ever so much, let them not be separated at the stubshot, but stuck up and seasoned, when lying just as they were sawed out. It will be found much more convenient and practicable to stick up and straighten a lot of timber, without separating the pieces at the stubshot, than it would to split them apart and then to stick them up.

This subject is of no little practical importance to young carriage-makers; and, if they have a lot of good logs at the mill, they will, most assuredly, find it for their interest to be on hand when those logs are sawed out, and to stick up the stuff straight, before it is half seasoned. Straight timber of any kind is always more valuable than crooked timber, because there is less waste in dressing it out, and because it does not require half the time and labor to dress it.

Who likes the task of straightening a piece of white oak or other hard plank, with the plane, after it has warped and sprung as much as it can? He who neglects to stick up his timber properly when it is green!

S. EDWARDS TODD.

LAKE RIDGE, TOMPKINS CO., N. Y.

For the New York Coach-maker's Magazine.

GEOMETRY OF CARRIAGE ARCHITECTURE.

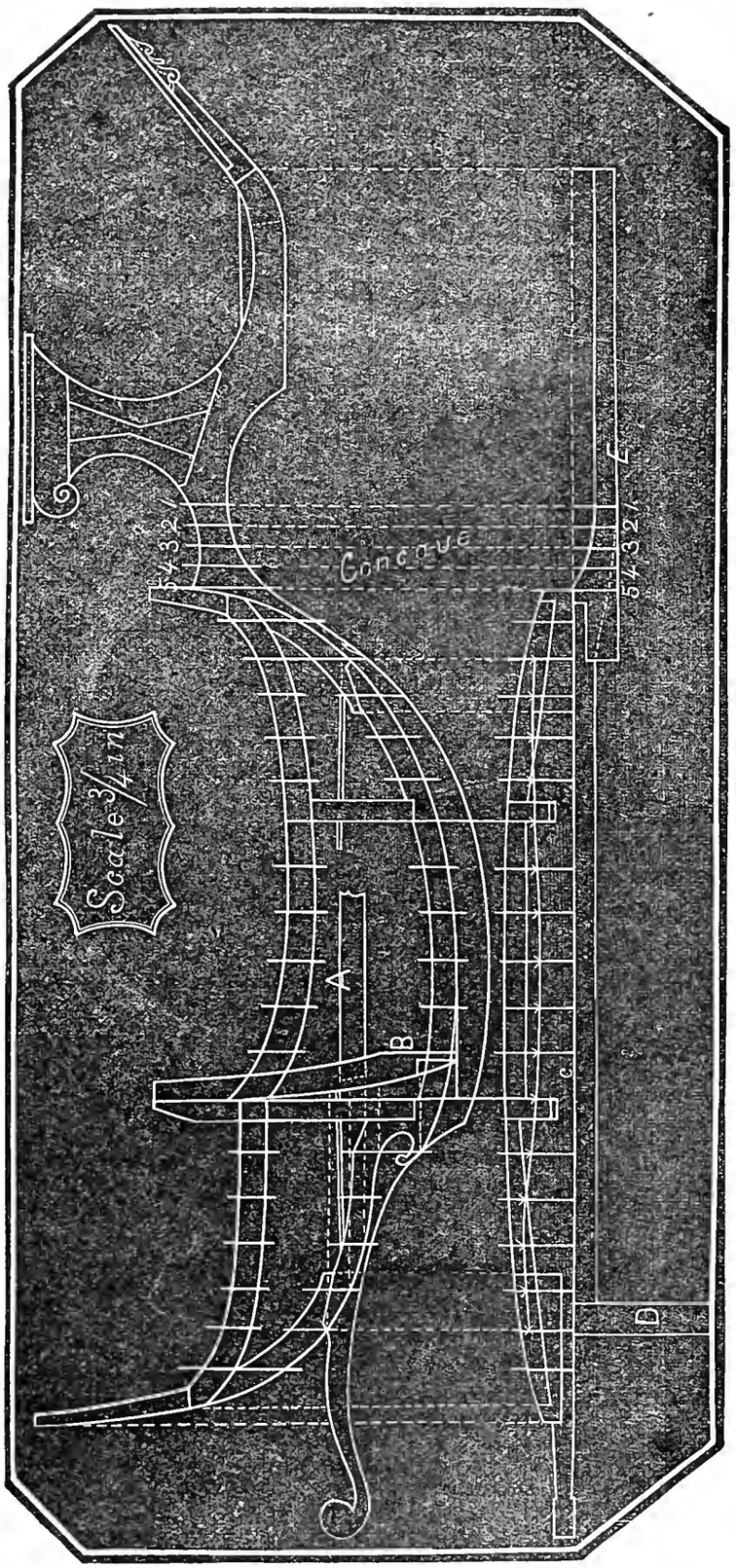
BY A PRACTICAL COACH-MAKER.

PART SECOND.—BODY-MAKING.

THE annexed diagram represents the body of a caleche, with the so-called concave front. In this instance, the kant-board is placed underneath the body. You see it don't alter the application of the rule, whether above, below, or half the width of the body from the base-line, unless in a contracted body. As I have mentioned in a previous article, it is preferable to have it placed half the width of the body from the base-line. The next diagram will give an opportunity of discussing the above remarks.

As I have explained in my last the manner of getting the sweeps of the different segments, it would be superfluous here to repeat them, only in this case you have no top-rail to keep your side-swell true and correct. You must be very exact in framing your seat-rails into the pillars, and getting them the proper length. For this job, we want 3 ft. 6 in. on the seat-line, A, between pillars, which you mark on the top of the rail; then mark on the pillar where the top of the seat-rail comes; then lay your pillar across the seat-rail, keeping your marks to meet each other; then apply your square, and keep the foot of the pillar at right angles with the seat-rail, and mark the level of the shoulder on the latter.

The length of the back bottom-bar, D, can be obtained in the following manner: In the first place, continue the straight line, B, till it intersects the seat-line, A, and take the distance between line B and the pillar on your dividers (which is, in this case, 1 inch), which you add to the space



SKELETON CALECHE AND KANT-BOARD.

between line *c* (which is the face of the bottom-side) and the pillar mortice on the kant-board, which will make it 2½ inches on each side (in all 5 inches), which you deduct from the length of the seat-rail, leaving a balance of 3ft. 1 in., which is the length of the back bottom-bar from shoulder to shoulder.

The next thing under consideration is the construction of the rocker which forms the concave front. This piece of timber requires to be 3½ in. thick. For our present calculation, the concave, as described, is 2 in., sometimes it is made an inch more, and over. That altogether depends on how narrow you require the front of the body. Our present calculation gives a front 33 in. wide, which is about the medium. To obtain the sweep: After you have the splice fitted, lay your piece intended for the concave on your draft-board in its place, and mark it at the top and bottom where the lines from the kant-board intersect it; then set your dividers from line E—the face of the rocker—to the concave line, and prick off the rocker top and bottom, at each respective mark. From No. 1 mark you can gauge the front-rocker to the bracket. When the outside is marked off, you can take away the surplus timber on the inside, to level it as much as possible for the edge-plates.

[We are very sorry to find that, notwithstanding all our pains, the compositor mistook the word "bevel" for "*level*" twice, in the twelfth line from the top of the first column at page 126; once in the twenty-fifth, and again in the twenty-eighth line. It arose, no doubt, from the fact, that our printer knows *well* the difference between an *l* and a *b* in MS., and a great deal more about spelling than "Carriage Architecture."—ED.]

EGYPTIAN MANUSCRIPTS.—M. De Sauley, a member of the Institute, who has passed some time in Egypt, and is very conversant with the archæology of that country, states, in the *Courrier de Paris*, that an important discovery has lately been made in one of the tombs of Memphis, of a whole library of hieratic papyruses. This precious collection would most probably have been torn into bits by the finders, and sold to the curiosity-hunters who frequent that country, had not an Arab, an agent of the British Museum, bought up the whole lot. Mr. Birch, of the Institution just named, has as yet only deciphered one of these curious manuscripts, which turns out to be neither more nor less than a complete history of the royal dynasties which are registered under the numbers eighteen and nineteen in Manetho's Chronological Canon. It is to one of those dynasties that the celebrated Sesostris belongs, and the same period comprises the history of the occupation of Egypt by the Hyksos, or shepherds, who kept the Egyptian races under their sway for ages. Modern Archæologists had already fixed the place of the King Raskennen, whose name is so frequently found on monuments, and in hieroglyphic texts, as belonging to a period anterior to the eighteenth dynasty. The papyrus mentioned confirms this opinion.

girl who had no handkerchief, and no knowledge of the use of that article, is, we submit, a trial of no mean magnitude. Yet we have been there, and have been obliged to "sit up close," with big RACHEL, laughing and blushing, till we came to hate her name. We wonder where the overgrown, frowzy creature is now, and what the condition of her head is?

THE FIRST LONG-TAILED COAT.

We do not believe that any boy ever put on his long-tailed coat without a sense of shame. He first twists his back half off, looking at it in the glass, and then, when he steps out of doors, it seems to him as if all creation was in a broad grin. The sun laughs in the sky; the cows turn to look at him; there are faces at every window; his very shadow mocks him. When he walks by the cottage where Jane lives, he dares not look up, for his life. The very boards creak with consciousness of the strange spectacle, and the old pair of pants that stop a light in the garret window nod with derision. If he is obliged to pass a group of men and boys, the trial assumes its most terrific stage. His legs get all mixed up with embarrassment, and the flap of the dangling appendage is felt upon them, moved by the wind of his own agitation; he could not feel worse were it a dishcloth, worn as a badge of disgrace. It is a happy time for him when he gets to the church, and sits down with his coat tails under him; but he is still apprehensive with thinking of the Sunday *School*, and wonders if any of the children will ask him to "swing his long-tailed blue."

GOING HOME WITH THE GIRLS.

The entrance into society may be said to take place after boyhood has passed away, yet a multitude take the initiative before their beards are presentable. It is a great trial, either to a tender or a tough age. For an overgrown boy to go to a door, and to knock or ring with absolute certainty that in two minutes all their eyes will be upon him, is a severe test of courage. To go before these girls, and make a satisfactory tour of the room without stepping on their toes, and then to sit down and dispose of one's hands, without putting them into one's pockets, is an achievement which few boys can boast. If a boy can get so far as to measure off ten yards of tape with one of these girls, and cut it short at each end, he may stand a chance to pass a pleasant evening, but let him not flatter himself that all the trials of the evening are over. Then comes, at last, the breaking up. The dear girls don their hoods, and put on their shawls, and look so saucy, and mischievous, and unimpressible, as if they did not wish any one to go home with them. Then comes the pinch, and the boy that has the most pluck makes up to the prettiest girl, his heart in his throat, and his tongue clinging to the roof of his mouth, and, crooking his elbows, stammers out the words, "Shall I see you home?" She touches her fingers to his arm, and they walk home about a foot apart, feeling as awkward as a couple of goslings. As soon as she is safe inside her own doors, he struts home, and thinks he has really been and gone and done it. Sleep comes to him at last, with dreams of CAROLINE and calico, and he awakes in the morning and finds the door of life open to him, and the pigs squealing for breakfast.

CONCLUDING REFLECTIONS.

We have passed over churning, and learning the catechism, because we are fearful of making this article too long, although we might have talked of butter that would not be persuaded to come, and perplexities of a literary turn of mind, and a head that measured seven and a quarter when asked what the chief end of man was. Boyhood is a green passage in man's experience, in more senses than one. It is a pleasant thing to think over and laugh about now, though it was serious enough then. Many of our present trials are as ridiculous as those which now touch the risibles in the recollection; and when we get to the other world and look upon this, and upon the infancy of the soul through which we passed here, we have no doubt that we shall grin over the trials which we experienced when we lost our fortunes, when our mills were swept away or burned, and when we didn't get elected to the Legislature. Men are but boys of larger growth.

Pen Illustrations of the Drafts.

For the New York Coach-maker's Magazine.

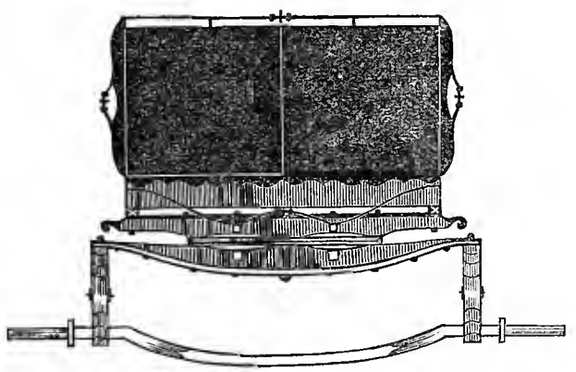
SIX-SEAT ROCKAWAY.

Illustrated on Plate XXVII.

BRIDGEPORT, CONN., Dec. 6th, 1858.

MR. STRATTON:

Dear Sir:—As I have been asked, by two different parties, for a Six-seat Rockaway, I have concluded to send you the accompanying draft, thinking it may be acceptable to a few more of your patrons. It makes a very desirable family carriage, especially where a gentleman wishes to drive without being separated from his family. It can be supplied with a movable glass-front, so as to shut off the proximity of the driver, which (as a refined young lady once said) "is vastly obnoxious." I have mounted it on platform springs, which makes it look more stylish. It can be hung on a perch carriage, with less cost, and will admit of any width of track required, as there is ample room for the front wheel to turn under. I also send a diagram, representing the manner of lowering the front carriage part, by dropping the beds. The body is made in the usual manner of coaches, with straight rocker. It will require rocker-irons $2\frac{1}{2} \times \frac{3}{8}$ of an inch.



This draft represents the front transverse beds, suitable for the Six-seat Rockaway, or any carriage hung equally low. The bottom transom terminates in almost a wedge shape at the spring, leaving the iron alone for support, shaped in the usual manner, in the form of a T, about $\frac{5}{8}$ of an inch thick.

J. IRVING.

MESSRS. GOOLD & CO.'S BRETT.

Illustrated on Plate XXVIII.

We are under obligations to the respectable firm of Messrs. Jas. Goold & Co., of Albany, New York, for this fine contribution to this plate. It is, we believe, drawn by Mr. Wm. H. Perry, and was originally designed by Mr. Walter R. Bush, a member of the firm. We need not tell our readers that it makes a fine carriage—this can be seen in the draft. The article we saw, on a late visit to Albany, standing in their repository, had a stationary opera board, although such an appendage does not appear in our drawing. The painting being a dark green, with mouldings painted black, and trimmed with green cloth and laces of the same color, imparted a fine contrast to the general *ensemble* of the carriage, exhibiting good taste in the getting up, which is characteristic of this establishment.

TROTTING AND BUSINESS SULKIES.

Illustrated on Plate XXIX.

We present our readers, this month, with two drafts of the sulky, both on the same plate. We do not offer them as showing any new feature, unless it may be in the formation of the boot of the business sulky. They will, however, answer the purpose for which they are intended—that of exhibiting to a customer when such makes a call, and does not exactly know himself what he wants.

Sparks from the Anvil.

TO CASE-HARDEN IRON.

First, make a paste of prussiate of potash, moistened with a little water, and apply to the surface of the article to be case-hardened, and, after giving it time to dry, put it in a clean fire until it assumes a low red color, after which it should be taken out and immersed in cold pure water. It is now what is termed steel converted, and, if designed to be bright, may be finished with the burnisher.

TO ENAMEL IRON.

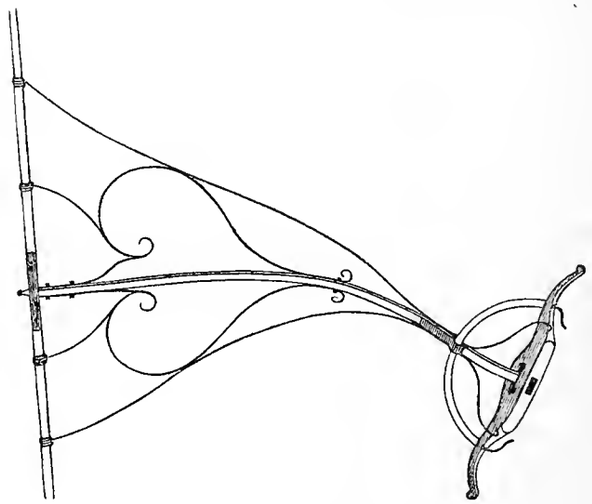
The enameling or coating iron with glass may prove useful to our readers, and, consequently, we are induced to present them with the following process, which is said to be effective for this purpose, and to be the most simple and cheap of any yet discovered:

First, scour your iron with dilute acid and sand, after which wash and dry it. The surface of the iron must afterwards be covered with a thin coating of gum-arabic, put on with a fine brush, over which sift the enameled powder intended as a glaze, until the surface is covered sufficiently thick to give it the desired glaze or color. The article, at this stage, must be put into an oven heated to 212°, until the glaze is completely dried, and afterwards put into a furnace and raised to a red heat sufficient to melt the powder, which, being accomplished, constitutes the glazed surface. After putting the article in some place where it will cool slowly, the annealing process completes the operation.

For the New York Coach-maker's Magazine.

PERCH WITH THE FITH WHEEL COUPLED ON THE TOP.

CONTRIBUTED BY WM. GUNTHER, OF OHIO.



The above gearing is applicable to a round-body with a wooden dash, where it is not convenient, by reason of the shape of the body, to have the front end of the perch straight. The fifth wheel is coupled *above* the perch by a hook, bent to the flat iron running along the top of the perch. The two head-block stays are joined at the fifth wheel, over which the united plate passes, as seen in the engraving. The wing-stays are rather more fanciful than useful, but will suit some of our friends, no doubt.

THE SMITH OF RAGENBACH.

In the principality of Hohenlohe, Laugenburg, is a village called Ragenbach, where, about twenty years ago, the following heart-rending, but also heroic event took place. One afternoon, in the early spring or autumn—my kind informant did not exactly know which—in the tavern-room of Ragenbach, several men and women having assembled from the village, sat at their ease, none anticipating what would happen on that eventful day. The smith formed one of the merry company—a strong, vigorous man, with a resolute countenance and daring mien, but also with such a good-natured smile upon his lips that every one who saw him admired him. Every evil-disposed person shunned him, for the valiant smith would allow nothing wrong in his presence, and it was not advisable to have anything to do with him except in a proper manner. His arms were

like bars of iron, and his fists like fore-hammers, so that few could equal his strength of body.

The brave smith sat near the door chatting with one of his neighbors, I know not what. All at once the door sprang open, and a large dog came staggering into the room—a great, strong, powerful beast, with a ferocious, frightful aspect; his head was hanging down, and his eyes bloodshot, his red-colored tongue hanging half way out of his mouth, and his tail dropped between his legs. Thus the ferocious beast entered the room, out of which there was no escape but by one door. Scarcely had the smith's neighbor, who was bath-keeper of the place, seen the animal, when he became deathly pale, sprang up, and exclaimed with a horrid voice, "Good Heaven, the dog is mad!"

Then arose an outcry. The room was full of men and women, and the foaming beast stood before the only entrance; no one could leave without passing him. He snapped savagely right and left, and no one could pass him without being bitten. This increased the horrible confusion. All sprang up, and shrank from the furious dog with agonizing countenances. Who should deliver them from him? The smith also stood among them, and as he saw the anguish of the people, it flashed across his mind how many of his happy and contented neighbors would be made miserable by a mad dog, and he formed a resolution the like of which is scarcely to be found in the history of the human race for high-mindedness and nobleness. Certainly his brown cheek paled a little, but his eyes sparkled with Divine fire, and an elevated resolution shone from the smooth brow of the simple-minded man.

"Back all," thundered he, with his deep, strong voice. "Let no one stir; for no one can vanquish the brute but I. One victim must fall in order to save all, and I will be that victim; I will hold the brute, and while I do so, make your escape." The smith had scarcely spoken these words when the dog started toward the shrieking people. But he went not far. "With God's help!" cried the smith, and he rushed upon the foaming beast, seized him with an iron grasp, and dashed him to the floor.

O what a terrible struggle followed! The dog bit furiously, on every side, in a most frightful manner. His long teeth tore the arms and thighs of the heroic smith, but he would not let him loose. Regardless alike of the excessive pain, and the horrible death which must ensue, he held down, with an iron grasp, the snapping, biting, howling brute, until all had escaped—till all were rescued and in safety. He then flung the half-strangled beast from him against the wall, and dripping with blood and venomous foam, he left the room, locking the door after him. Some persons shot the dog through the windows. But, O! merciful God, what will become of the brave, unfortunate smith?

Weeping and lamenting, the people surround him who had saved their lives at the expense of his own. "Be quiet, my friends; do not weep for me, for I have only performed my duty. When I am dead think of me with love, and now pray for me, that God will not let me suffer long or too much. I will take care that no further mischief shall occur through me; for I must certainly become mad." He went straight to his work-shop, and selected a long chain, the heaviest and firmest from his whole stock. He then, with his own hands, welded it upon his own limbs and round the anvil so firmly that no power on earth could break it. "There," said he, "it's done," after silently and solemnly completing the work. "Now you are secure; I am inoffensive. So long as I live bring me my food. The rest I leave to God: into his hands I commend my spirit." Nothing could save the brave smith; neither tears, lamentations, nor prayers. Madness seized him, and after nine days he died; but truly he died only to awake to a more beautiful and glorious life at the right hand of God. He died, but his memory will live from generation to generation, and will be venerated to the end of time.

Search history through, and you will find no action more glorious and sublime than the deeds of this simple-minded man, the smith of Ragenbach. It is easy for noble minds to die like Winkelreid, or Martius Curtius, the high-spirited Roman youth; but to go to the sacrifice with the certainty of death, and, moreover, being obliged to wait a death so awful, during long, fearful hours and days, that is to die not once, but a thousand times. And such a death was that of the smith of Ragenbach. Such a sacrifice the smith of Ragenbach made in order to save his neighbors. May his memory ever be sacred.

Paint Room.

For the New York Coach-Maker's Magazine.

DRY-COLOR ORNAMENTING.

BY JAMES SCOTT.

In many localities this process is coming into general favor among painters. For designs, composed of flowers or fruit, it is well adapted, and, indeed, some of the plainer styles of scroll work; but for anything very elaborate or requiring high lights and deep shades, the system is, in my opinion, worthless. The very best specimens of work executed in dry-colors that I have yet seen, and in fact all of it, good, bad and indifferent, presents a peculiar flat appearance, seldom seen in ornaments done in oil. The advantages claimed for the process by its advocates are: First, the job can be varnished as soon as the ornament is finished, no time being required for it to dry (a great advantage, certainly). Secondly, the most delicate colors, such as lake, carmine, marine blue, Naples yellow, etc., can be made to cover perfectly at *once*, no repetition of coatings is necessary as in oil coloring, and lastly: Tints which do not assimilate can be blended into each other most beautifully; producing effects, particularly in flower painting, which it would be difficult to excel by any other method. In painting crests, dry colors may be employed very advantageously on some parts of the work; on a shield, for instance, where you require a field of some rich tint, purple, claret or violet, you can produce in a few minutes what would take, at least, two coats of oil color and an hour's work. After acquiring a practical knowledge of the system, you will discover that in a great many cases it can be profitably employed in conjunction with the usual method.

Now for the process! Grind some white lead in varnish—English is best for this purpose, as it retains a "tack" longer than any other—add sufficient sugar-of-lead to dry it in a couple of hours, I do not mean to dry it hard but so that it will have a strong tack similar to sizing for gold-leaf or bronze, pounce your pattern on the panel and apply a coat of the mixture. Have all the colors you intend to

use finely pulverized, mix and arrange them on your palette, and, as soon as the sizing is dry enough, apply them with camel-hair or sable pencils just as you would oil colors. Commence at the bottom of your design, so that the particles dropping from the pencil will not adhere where they are not wanted. A little practice will make you acquainted with all the details, such as the size of pencils, etc., which I have not thought it necessary to introduce here.

The art, I have been informed, is a German one—it is practiced in that country in ornamenting clocks.

METHOD OF FILLING CARRIAGE-PARTS.

Sand-paper the work *well;* give it a coat of lead, and, when dry, putty up the holes; give the putty time to harden, and your gearing is ready for the filling, which is nothing more or less than keg lead mixed with a little japan—not enough to thin it much. Put it on with a short, stiff brush, and smooth it off with your hand, or a piece of thick harness-leather, using the edge. In two days this mixture will dry, when it may be sanded off. It fills the work better than three coats applied in the ordinary way, and I have been informed, by those who have used it for years, that it will stand full as well as any other method—an assertion which I have no reason to doubt, as there is certainly oil enough in it to prevent it from peeling off or cracking, as is often the case with the old-fashioned shop-work filling, made with whiting and japan, and applied in the same manner. For my own part, I prefer the common way of filling up with successive coats of lead-color, but, in cases where work is hurried, it would be well enough to use this quick and effectual mode of filling.

"THE WRONG CAN."

A friend of mine, who is foreman of the paint-shop in a large establishment, tells the following good one:

"Being pushed with work, and short of hands, he hired a tramping jour., who happened to come along in search of a job. It was not long ere he discovered that the new hand possessed talents which fitted him for trundling a wheelbarrow on the railroad, better than for wielding a brush or drawing a stripe. Under ordinary circumstances his walking papers would have been tendered him forthwith, but the shop was full of repairing, which had to be done immediately, so the new-comer was introduced to several old rattle-traps of buggies, with orders to paint them black. At it he went, and in three or four days he had the bodies ready to varnish. With cup in hand he came to the foreman to inquire the kind of varnish he should use, and where it was kept. He was directed to that part of the shop where the oil, turpentine, japan, and varnish cans stood, on a raised platform, and told the particular can to draw from. In about an hour after he had commenced operations, the "boss" went into the varnish-room to see how he was progressing. The jour. had, in stage parlance, "struck a position" in the middle of the floor, and stood staring at a body which he had evidently just finished. The expression of his countenance was one of stupified astonishment—and well it might be, for the job looked as if it had been dipped in a mud-hole, then tarred, and hog-bristles stuck on, at irregular intervals, by way of ornament.

"What, in the name of common sense, have you been doing to that body?" cried the foreman, recovering from the speechless amazement into which the strange appearance of the varnish had thrown him.

"I hardly know, myself," answered the man. "I thought that I was varnishing; but if that 'ere aint the meanest, blackest, stickiest stuff to be called varnish I ever did see! The hog never grunted that had bristles strong enough to spread it."

"Which can did you draw it from?"

"The last but one from the end, as you told me."

"Which end?"

"The furthest end, of course."

"Just as I thought. Why you must be a nice painter, not to know that you were using *japan* in place of varnish."

"Oh, that's it! Well, considering that it's japan, I didn't get such a bad coat on it; did I? *If it wasn't for the bristles, it would look first rate.* What will I go at next?"

It is needless to say that he went at his *coat* and *hat* next, and it is a wonder that a pegged boot didn't go at him.

RED LEAD.

A small quantity of red lead mixed with your rough stuff or filling will help to harden it, as the lead is a dryer of itself. Try it.

BEAR-HAIR BRUSHES.

For varnishing bodies these brushes are excellent. They can be bought for one-third of the cost of badger, and are full as good for general purposes, perhaps better for varnishes which set quick, as the hair is stiffer, and yet perfectly free from wiry harshness. They can be procured all widths, from one inch to four. In style they are similar to the flat camel-hair tools. I have learned that they are much used for coloring cars, and do the work smoothly and without leaving brush-marks. They are manufactured, I believe, by Dechaux, the celebrated color and brush-maker, of New York, and can be found in all the painters' depots in the principal cities.

A HINT TO THOSE WHO NEED IT.

It is next to impossible to put on a clean coat of varnish when it is used out of a cup that is covered outside and in with dry gummy varnish. Every time you use it some of the old stuff will become detached, and mix with the varnish you are putting on, or get into your brushes. To prevent this, clean your cup every time you use it. Take an old brush, pour a little turpentine into the cup and brush the varnish off, then wipe it dry with a cloth. The trouble is nothing when we consider the benefit arising from the operation.

ENGLISH VARNISH.

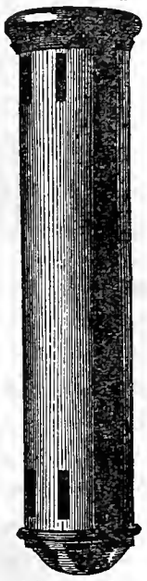
VERY great complaint has latterly been brought against the varnish of Noble & Hoare's manufacture, that it does not dry as well as formerly, and that it soon becomes dull by standing in the repository. Becoming dissatisfied with the article ourself the past season, in the belief that such was the case, we felt disposed "to try" somebody else's varnish, and so "posted off" to our friend Kohnstamm's, No. 3 Tryon Row, City Hall Square, and bought a can of Blundel, Spence & Co.'s English varnish, which is 25 cents per gallon cheaper, and far superior. Our painter, who is posted, says *it is first rate.* Try it, friends.

Trimming Room.

A CHAPTER ON WHIP-SOCKETS.

PERHAPS, small as the matter appears at first sight, there is nothing more annoying to a carriage-maker, than to have a customer, who has, but a few days since, bought a new vehicle, pay him a visit, not in any very good humor, with a bottomless whip-socket in his hand. We say *bottomless*, by which we mean, with the bottom gone, and a "bottomless" tale, about charging the damage to his account. Perhaps, in the vehemence of his passion, Mr. Findfault tells you he will bestow his patronage hereafter on Mr. Opposition, across the street, accompanied with the not very agreeable intimation, that "you do not understand your business," not knowing, in *his* ignorance, that both purchase the ready-made article from the same "improved" manufacturer, and that it is recommended to look better, wear longer, and *cost less*, than any other in the world.

We are accustomed to look back upon old things with a smile of contempt, and particularly when we recollect the old, "slimsy," cylindrically-formed leather-tubes, called whip-sockets, which ornamented the turn-outs of our ancestors, and were continued down to a recent date, *in all their beauty!* But CHANGE is written on all things here, and, from its laws, whip-sockets, among other things, were not exempt. Some genius, of the Yankee stripe, dreamed one day, that *a stiffener* of tin, placed inside, would constitute the article the *ne plus ultra*. But this, like Paddy's gin bottle, had its defects, the bottom would drop out and spill the contents. Well, this "improvement" must undergo another improvement, and so *a change* stuck a wooden plug in the lower end of the *over*-improved socket, which was even more faulty than its parent stock—more liable to fall out than even the tin bottom!



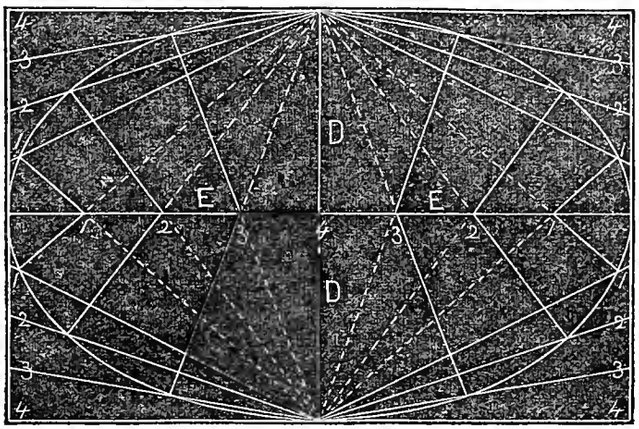
At this point we are disposed to wipe our pen, and lay it by, did we not think it to be our duty to present, before our readers, the latest improvement in this very essential appendage to a carriage. We are not inclined to puff any article which may appear in our advertising columns, and would not here, as we get nothing extra for the notice, did we not believe that "the Improved India-Rubber Whip Socket," of our friend Munson, deserved it. Backed up by such names as Messrs. Wood Bros., Brewster & Co., Fred. Wood & Co., and G. & D. Cook, it would seem to require no further recommendation. The illustration shows that these sockets have a bottom of a piece with the stock of the socket, and that they make a neat and durable article, impervious to the weather, without the addition of such "gingles" as tin and plugs. Try them. S.

For the New York Coach-maker's Magazine.

HOW TO OBTAIN A PERFECT OVAL.

As ovals are in constant use in the carriage business, it is well to know how to obtain a perfect one, as I claim ovals struck out by a compass are imperfect.

As this rule will apply to any sized oval, get your board, and mark out an oblong square the size you want your oval, and divide it into four equal parts, by the lines E E



and D D. On line E E set your compass, and divide it from the centre into, say, four equal parts, numbering them from each end; then on the end lines, F F, divide them also into four equal parts, numbering them from the centre. This done, draw lines from the top and bottom points at D, to the numbered points at the side; then from the same points at D draw lines across the numbered points on line E E, till you come in contact with the corresponding numbered line. From the end, from those points, trace your curve, and you have a perfect oval. The dimensions of a well-proportioned oval should be in breadth two-thirds its length. J. I.

EXPLANATION OF STITCHING PLATE C.

MR. E. M. STRATTON: The designs I send you are intended for light road-wagons, and when properly put on, and nicely stitched, make a very fine finish. I have used the whole pattern myself; but many trimmers would object to it, on account of the work. Still, as your Magazine is for fashion and style, I send you the patterns as I used them on a wagon that was in the Palace, and there destroyed by fire.

No. 1 is the half for the centre-pieces to sides, and back to boot.

No. 5 furnishes the end-centre, having a silver ornament.

No. 2 is the corner for the back of boot.

No. 3 is for the bottom corner ends to sides. The top corners must be altered to suit shape of boot, not thinking it worth while to put them on the block, as they are the same, only placed more on the square.

No. 4 is for the cushion facing and sides to seat-fall, by getting the required length, and making ends both alike.

No. 6 is the centre ornament for a whip-socket.

Respectfully yours, CHAS. T. LYON.

NEW YORK, Dec. 13th, 1858.

JULIUS CÆSAR HANNIBAL, giving an account of his sea-voyage, says, "All de passengers was now heavin'; and, as if dat wasn't enough, de captain giv orders for de ship to heave-to, and she did heave too."

The New York Coach-maker's Magazine.

JANUARY 1, 1859.

E. M. STRATTON, Editor.

TO READERS AND CORRESPONDENTS.

"H. G. S. & Co., Miss."—We supply no orders of the description you want, without the money in advance. The dog-cart you allude to is itself a correct working draft, and we should think any coach-maker with ordinary judgment might build one without difficulty.

"J. W., New Haven."—Three months ago, when you left the club where you subscribed, you should have written us that you wished the direction of your magazine changed, and not have subjected yourself to the loss of three numbers, which we have already sent to your former address.

"G. W. H. and F. H. M., of Ind."—We have none of "the guide" you inquire about. It was never anything else but "a blind guide" to the public, and we are happy to say we never had anything to do with it. We regret we cannot say as much of its substitute and its swindling conductor.

"F. L. W., of N. C."—You appear to have adopted a singular mode of doing business; written to some half a dozen individuals for the same omnibus on the same day. Fair dealing would have dictated that you should have awaited our answer, before making us the expense and trouble for which we now get nothing.

An inquisitive correspondent asks, "If that chap's legs (alluding to *our* Bill Brazen) were got up under Goodyear's patent?" Whether the impertinent fellow is joking, or whether he may not be merely a spy in Horace H. Day's employ, to trump up evidence against us, we are at a loss to determine. As a *settler* for the present, however, we must emphatically declare, *that they were "got up" under our own patent.*

A gentleman, who takes a deep interest in the success of our magazine, inquires, "Do you think it would be doing the magazine and the proprietor justice to give the shop that I am employed in the privilege of using it in all the departments, especially in the blacksmith's shop, where the hands are all 'niggers;' or to lend it out to other shops where they *only want to look at it?*" Of course not. If the persons you complain of want the benefits to be derived from the perusal of the magazine, let them act from purer motives, by sending the publisher three dollars, so that, instead of their allowing the work to languish for lack of support, they assist in promoting its success, and so contribute to their own advantage. We contend that, should any one of our subscribers only get *one* new idea out of our pages during an entire year (as coach-making is the business by which he lives), still it is valuable to him, and worth to him all he pays for the work.

A NEW YEAR'S GREETING.

To our kind patrons, one and all, a happy New Year!

A year since and the Crisis was upon us. Everything in the commercial world was in disorder and confusion. Even many who had on former occasions weathered the storm and tempest of business life for years—those whom the community looked upon as being wealthy, even beyond the dreams of Avarice—were, with many others more recently enlisted in business, overwhelmed in one common ruin. Despair, with an iron pen, seemed to have traced her mark on the countenances of all. Days of agitation and sleepless nights threatened to have almost buried the masses in one common tomb. A winter of unlooked-for trials and hardships, from which the really wealthy were not exempt, threatened to overwhelm the whole community with the deepest gloom, and which was only mitigated by the hope that returning Spring would bring the needed relief—especially to the Coach-maker, whose interests are ever immediately affected by sudden stagnations in the commercial world. This hope was the lever which kept him out of the slough of the lowest despair. It came, but no relief, commensurate with our fond expectations, presented itself. The balmy breath of Spring passed away, the gentle breezes of Summer came and went, the promises of Autumn were not realized, although in a few localities some slight indications of improvement in our business were perceptible.

But let us take a retrospective view from our present standing-point. Have we not great reason to be happy, since the great Author of every blessing has preserved our precious lives and given us food and raiment, health, strength and the national blessing of a general peace with mankind of every nation? Have we not been favored with a fruitful year of agricultural prosperity, filling our land with joy and gladness? Are not our coffers full of the precious metals? so full that silver and gold are a drug in our markets, and even country bank notes are at a premium! a state of affairs the most dreamy and speculative advocate for a "specie currency" never imagined. With the basis of a sound and healthy business already laid, are not the prospects of a good business season for the craft encouraging for the approaching time—

"When the breezes of Spring shall re-visit our land?"

We judge so; and whilst we would extend a friendly hand to every fellow-craftsman—especially those who have sympathized with us, and lent their influence and support to our new enterprise—and wish him A HAPPY NEW YEAR! from the deepest recesses of our heart, we would say, that we feel that we are warranted in predicting that the future is full of hope—is pregnant of many "happy new years" to come. Reader give us your hand, while we again greet you with A HAPPY NEW YEAR!

OUR EASTERN VISIT,

(CONTINUED).

Scarcely had the golden king of day tinged the eastern horizon, in his ceaseless and onward progress, when, with "traps" in hand, we hurried to the Bridgeport station of the New York and New Haven Railroad, bound East. An early, refreshing, and pleasant ride of some forty-five minutes, including stoppages at various places, among them Stratford and old Milford—the latter celebrated in the early history of the settlement of Connecticut—the former famous as being the place, standing on the right bank of the Housatonic river, which here empties itself into the Long Island Sound, from whence the Western section of the State obtains its supply of shad—both of which, in the language of Young America, may be denominated decidedly "old fogy" villages—brought us to New Haven. The citizens of

Connecticut are very fond of dignifying the towns bordering upon the Sound with some name terminating in port. We, therefore, volunteer—being to the manor born—to suggest that old Stratford, ignoring Shakspeare's memory, be hereafter named *Shadport.* It would be quite as dignified, and far more appropriate than some of the places in New England, baptized with new names in the hope of increasing their prosperity, and elevating their dignity.

Once in New Haven, we soon found ourself in the midst of friends, whose warm hearts and liberal hands have been extended in behalf of our enterprise ever since its being undertaken. We hope that our gratitude may be commensurate with the sympathy manifested in our behalf. Since our late associate has, in another part of this volume, noticed many of the principal manufactories in that city, we shall spare our readers the infliction, and ourself the pains of a detailed narrative here, simply remarking that we did ourself the honor of calling upon that veteran coach-maker, Mr. Jas. Brewster, whose fame, as a successful fellow-craftsman and gentlemanly citizen, is known throughout the land. From him we gathered much valuable and interesting information respecting coach-makers and coach-making, not the least of which is the fact, that there is more wealth to be found, at the present time, among a given number of coach-makers in New Haven than among the same number of individuals in any other branch of business. Their wealth and respectability place them at once in the catalogue of those who exert a great influence in the affairs of the city government. Probably, in no section of our land does coach-making maintain a more dignified standing than in the city of New Haven.

From New Haven we shaped our course, "due North," for Plantsville, *via* the New Haven Canal Railroad, which receives its name from the circumstance that a portion of the road leads along the bed where once flowed a canal more picturesque than profitable to the stockholders. In passing along this road, soon after leaving New Haven, the eye of the stranger is forcibly arrested by the singular appearance of two reddish-colored elevations, known as the East and West Rocks—the one famous as being the hiding-place of Goff and Whaley, known as the regicides or judges of Charles I. of England, at an early period of our history—the other, in later years, as being the residence of one Turner, whose eccentricities won for him the name of "The Hermit."

One is forcibly struck with the air of contentment which seems to pervade the almost universally white-painted houses that everywhere bestud a New England landscape. It may be seen at a glance that the people are industrious, and, consequently, happy, and we opine that were our Pilgrim ancestors to again revisit their former haunts, they would find no reason for disowning their later descendants.

Plantsville, the point of our destination, is one of those manufacturing places recently sprung into existence, arising mainly from the enterprising spirit of the Messrs. A. P. & H. E. Plant, which was formerly called Southington. The Plantsville Manufacturing Co. is decidedly an "institution" of the country, around which centre the interest and happiness of many families of mechanics, some of whom have quite a property of real estate, the result of prudence and industry. The history of this Company is one of the wonders peculiar to America, and has, in a great measure, grown out of the success attending the manufacture of such simple household utensils as the "Plants' Geared Coffee Mill." Under the guidance of Mr. A. P. Plant, one of the firm, we were kindly conducted over the premises, and through the mazy labyrinth of work-shops, which afford employment to three hundred hands in business times, but which, at present, employ about half that number. At this place 300,000 dollars' worth of carriage and other bolts, nuts, washers, rivets, etc., has been manufactured from the bar, annually, and, notwithstanding the prevailing hard times, about 15,000 dollars' worth is being made here monthly now. The manufactured nuts alone made here annually will weigh 300 tons. We saw a girl at her work, cutting the thread on tire-bolts, 10,000 of which she finishes per day, at ten cents per thousand. The mystery, to our mind, is, what becomes of all the bolts, etc., made here. One would think the Company's facilities would glut the world's market with the article. We hope to find occasion to revert to this subject on a future occasion. In this place may also be found the celebrated establishment of the Messrs. Smith & Co., to which we have barely space here to allude. Upon the whole, our Eastern visit was one of satisfaction and pleasure to us, which we hope to repeat in the spring, when we intend to make a closer and fuller personal acquaintance with the craft.

THE CHAFINGS OF THE CABLE.

WE hear but little about the Atlantic cable now-a-days—merely an allusion now and then—just enough to remind the asses, who made such fools of themselves and us, the other day, in running a muck up Broadway, to the tune of forty thousand dollars, and which, with the integrity peculiar to the present board of our city "daddies," with *water-proof* consciences, was taken deliberately out of the pocket of that *over-nursed* individual, "the dear public," for the especial benefit of his tax-paying family, that the celebration, in its honor, was premature. But we suppose they have accomplished *their* object—had a jolly blow-out at the Astor, as the pleasure of guzzling, at other people's expense, seems to be about the climax of virtue in a New York Alderman—when he is not engaged in helping some "contractor" to "prospect" in *gougeing* the commonwealth.

We are apprehensive that, if the cable is not speedily fixed, like *its parting*, the fraternization of Uncle Bull and his aspiring nephew Jonathan will soon evaporate, and that they will again get at loggerheads, as heretofore, as to

who shall fish in, or be master of the "herring pond." Indeed, at this present writing, the steamer from Europe brings us "the Thunderer," wherein we find the editor is already poking fun at us. Read what follows:

"Will our newly-made neighbors, on the other side of the Atlantic, now only just a cable's length off, pardon us if we apply this passing reflection to them? Not that we would for a moment insinuate that they, in their body politic, are afflicted with gout or with toothache; for our flat-footed young friend strides with the tread of a juvenile giant, and his grinders are so hale that, having munched up half a new world, he is rather suspected of indulging gastronomic designs upon other portions of it. In fact, if he has a fault in respect of his teeth, it consists in just a little too much fondness for showing them. But there is something rather wrong about our friend's skin. The oil of human kindness, in which he was dipped, was a little too hot, and has scalded off the outer cuticle. His sensations seem to be rather akin to those of the ancient invaders of England, morsels of whose skin are still under the nail-heads of our old church doors; or to those of that ill-used saint who stands in—we forget which continental cathedral—draped in his own flayed-off hide. He quivers to every touch; and, but that his muscles are large and his strength and temper are dangerous to any one volunteering the friendly operation, a good healthy tar-and-feathering would do him a world of good. It is our own fate always to be in a difficulty with our sturdy friend. We can never be quick enough to meet his hot fits of affection, or to get out of the way when the boot-jack and the gout-stool are flying across the room. We are always doing something to congeal his gushing sympathies, or to heighten his ill-temper.

"The New York *Morning Courier* takes us to task for this, our misconduct, in a spirit of courteous admonition, which, as it is not very common on the other side of the Atlantic, may not be passed over without the courtesy of a reply. Our Transatlantic remonstrant, after a general charge of ancient grievances, which, as they are not specified, cannot be refuted, does us the justice to admit that the *Times*, when speaking of 'our country and its institutions, has usually done so in a fair spirit.' Well, that is something. We have not been false to the fundamentals of friendship. We may have thought it a matter of duty to tell him we thought he was rather sharp in foreclosing the mortgage on that Mexican's estate, or that he must not disgrace himself in the eyes of his country by stealing that Spaniard's tobacco-box, or that he ought to keep his sons from riding over his poor neighbors, or that we should be obliged to him not to poach more than he could help in our fish-ponds, and we have even gone so far as gently and meekly to hint a complaint to him of the nuisance arising from the cries of that black servant whom he is always thrashing. We have never, it is true, done any of these things without putting him into a terrific passion, but we cannot, in our conscience, think we were in fault; for even the indictment against us admits that he and his family have always been treated with due respect, and that even our friendly remonstrances have been made in a fair spirit. Our new crime is, however, we can feel, almost unpardonable. We have made a mistake about that Transatlantic telegraph. Cousin Jonathan intended to be sublime, and we, in our error, fancied he intended to be ridiculous. We unhappily mistook his pathos for bathos. He entertained us with a performance which he intended to be most affecting, and we had the misfortune to think it was a farce which he meant us to laugh at. So we poked our little bit of fun at him in return, and with due promptitude the gout-stools and the boot-jacks came flying about our ears; next morning came the more formal and courteous epistle to which we are now replying. Now, our New York cotemporary is much mistaken if he supposes that the people of England were not quite as much pleased at the apparent accomplishment of an instantaneous communication between the two nations as the people of America were. There was some promptitude in the royal message; a confidence which could only be inspired by strong interest, and a strong hope was manifested by the buyers, who ran the shares up to par on the Liverpool Exchange; and we cannot think that we ourselves were wanting to the occasion. We took the best means in our power to secure a clever and graphic history of the operation, and if our English ship-of-war had foundered in the tempest, we should have had our own special cause for mourning; we celebrated the success with as much glorification as we soberly could, and it is not much more than a month since we quoted from the New York papers acknowledgments to the *Times* for being the only paper which, on the day of the arrival of the news, had devoted a leader to the subject. How far we may be entitled to that distinguishing praise we do not know; it was given us, and we quote it, therefore, against the donors. But we did laugh. The fact is not to be denied. But how could we do otherwise? If New York had piped to London any rational tune, London might have danced to it; but "Yankee Doodle" was played so fast and loud that no English feet could keep time to it.

"The outward methods of expression of great joy were strange to our island humor. The 'Young Men's Democratic Union Club,' accompanied by a choric band, serenading Mr. Field, was an oddity in our eyes. Some of us have seen real serenades at our opera houses, but when the idea is suggested of a middle-aged gentleman roused from his sleep, and struggling into his clothes, in order to appear upon a balcony to be played to by votive male admirers, equipped with fiddles and mouth-organs, our English gravity is overtaxed, and will explode. Then, when the last scene came, and the illusion ended with the combustion of the City Hall, and when we were entertained with the appearance of the Mayor of New York at the end of the performance, facetiously announcing that the Lord Mayor of London had, in a higher strain of joyous frenzy, ordered the London Mansion-House and the Palace of Westminster to be lit up as a responsive bonfire, no one could have imagined that we were expected to keep countenance under pain of being accused of 'laughing at American enthusiasm.'"

We already begin to tremble lest a long period intervenes before the important news will reach us before breakfast the next morning, as to what kind of a night-cap "her Majesty" wore the night previous, or what was the color of the Prince's night-shirt. We are also fearful lest that statue to Cyrus, which was to be, will never present any other show than that of a slab, and that "cable" stock will fall to the value of "Harlaem Canal"—in fact, lest the whole thing turn out to be the greatest humbug (always excepting "our old friend" of the "Pioneer") since Adam was a baby. What *is* the present value of cable stock?

ARRANGEMENTS FOR THE FUTURE.

WE feel much pleasure in announcing to our readers that, through the agency of a friend, we have made engagements with Mr. Jos. Neuss, of Berlin, and Mr. Otho Naegele, of Stutgardt, for one or more drafts each, monthly, of anything new that may present itself in the line of carriages in those cities. Being both practical mechanics, and extensively engaged in the business of manufacturing (the first named gentleman having two draftsmen constantly employed), we hope to be able to present a variety in our plate department, very soon, that will give our friends satisfaction.

The arrangements we have made for the Parisian fashions, combined with those above, and at home, we trust, will convince the skeptical and give the fullest evidence to our friends, that we are in earnest and intend to prosecute our new enterprise with renewed energy. Although Mr. Brosi's engagements abroad have entailed some expense on us, yet we feel that the continued favor of our friends fully justifies us in the step we have taken, and encourages us in the belief that we shall be amply repaid for all our outlay.

Our next portrait will be that of Mr. W. D. Rogers, of Philadelphia, a gentleman who has a world-wide renown for being one of the best mechanics in the craft, and as a gentleman of ability, well informed on the subject, has consented to furnish the literary portion for our columns, we are satisfied that our readers and patrons may confidently expect a treat not met with every day.

We might promise much more, but since we set out *to deviate* a little from the example set us by our old associate "out West," and *perform* instead of *promising*, we shall leave our friends to find out our intentions, by actual accomplishment.

FAMILIAR LETTERS FROM THE CRAFT.

RALEIGH, N. C., Nov. 27th, 1858.

FRIEND STRATTON: It is with feelings of pleasure that I catch my pen to redeem my promise to you in regard to coach-making in the South; but I will try and confine myself to North Carolina in this letter. In the first place, as for the size of the shops. There is but one in the State that I could call a coach-maker's establishment; that is situated in Fayetteville, about sixty miles from Raleigh. The worse curse we have is, there are so many negroes or slaves in the business. Nine-tenths of the blacksmiths are slaves, and there are a great many of them in other branches of the business. The shop that I worked in last June—before I came to this place—run three fires in the blacksmith-shop, and the hands were all negroes (slaves), with four wood-workmen. After I left the place, they honored my bench by putting a *black* nigger to work upon it, and the niggers here take up the idea that they can do a job as well as a white man; and I must say, if I speak against the South, that I have found one or two that would puzzle a Southern man to badly beat. I had one tackle me since I have been in this place. He undertook to work with me on a buggy carriage-part; but I only beat him about twelve hours—I made mine in six, and he in eighteen. Since then he has not troubled me for a race. The most of the work that is put up in this State is buggies of the most common kind and in the cheapest style, and some solid-side rockaways. I have worked in and around North Carolina for the last two years, and have only built one six-passenger job, and one four-passenger—both of them being solid-side jobs. One of them was taken from the Western trash, in the April Number, called the Taylor Rockaway, and it was a tailor indeed.

The most of the rockaways built here are those small solid-side jobs, with folding or, rather, turn-over front seats, which have to be turned over to allow a person to get into the back seat. The body is about four inches longer than a buggy, and the inhabitants of this place will not have them if they are not coupled as close as a buggy. They preach up the doctrine, that they run too hard for a horse. The coach-makers get a very good price for work here. For a buggy got up, as we, Northern men, would say, plain, they get from $150 to $175, without a top. There is a great deal of varnished work got up in the State. Talking about varnished work—you ought to step down to Augusta, Ga., and see the niggers in Mr. Luther Robb's establishment get up varnished work. He is a man that works all slaves, having 3 wood-workers, 4 blacksmiths, 3 painters, 2 trimmers, and 3 harness-makers. They can varnish and trim a buggy a week; and there is another man within ten miles of that place, by the name of *****, who also carries on the business in a small way. He hires, or, rather, gives Northern men a job if they should happen to call upon him, and hardly ever pays his hands off. I have seen many of his buggies sold for $60. You can buy the best buggy put up in Mr. ————'s establishment for $100, and then you would not get much of a bargain. But I fear I shall mar your most excellent patience with this trash; so, if you can glean anything from this, you are welcome to it, and, believe me, I am yours in trying to forward *our* cause, B. H. HUESTIS.

TRIUNE, TENN., Nov. 29th, 1858.

FRIEND E. M. STRATTON: Having received six numbers of your Magazine, and being personally acquainted with you for many years, and "one of the craft," of which I feel a degree of pride, since we, as a body, display as much literary talent and mechanical ability as any other class of men. Where we are deficient in one point we make up for the defect in others.

I should be gratified to read a short communication in *our* Magazine every month from each sister State. I do not ask you, Friend S., to publish this letter, for I have not the time to do your readers justice, even were I competent; but having extended to us a broad invitation, I therefore feel at liberty to address you, leaving you to make such a disposition of my letter as you see fit.

I hail the Magazine as a welcome messenger, and am procuring you some subscribers, and have no doubt but that, ere long, it will be received into every shop. I like the design of your Magazine. It is calculated to elevate the trade in the estimation of other tradesmen, and it is the duty of us as coach-makers, from the employé to the employer, to sustain our Magazine. It is published at the most central point of trade, and has better facilities for giving early and reliable information to the craft than it could published anywhere else. Let the craft, then, assist in elevating its social tastes and literary interests, which will

tend to make our position second-best to none. Let us, by our patronage, hold up the hands of our worthy Editor, and fill his pocket with the dimes. Would that we were bound in closer bonds. Do we not need a coach-makers' society at New York, with branches in all our large places of manufacture, that we might be protected from base loafers who often impose upon our charity as impostors, and who have never completed the first job in good style? Having a Magazine in full blast, let us have a regularly-organized society to protect and encourage the worthy, and send adrift the dronish and degraded. I need not name the advantages the Magazine has brought to the wheeler, finisher, and others.

Carriage-making in Tennessee has improved fifty per cent. within eight years, not only in the styles, but in the demand for a first-class article. Light carriages and buggies are coming into general use. Some eight years since, in all our gathering-places a few miles from town, you would, perhaps, see one or two clumsy buggies—to such, now-a-days, we give the name of "horse-killers"—two or three barouches of the same stripe; six or eight C spring coaches, with yellow jackets on to protect the paint from mud, and hundreds of horses, about one-half with ladies' saddles on. Now custom has changed. Ladies prefer a seat in a buggy or carriage, especially when a sweet-heart is their gallant. Buggies are said to be very nice for making speeches in to the fair sex, and are becoming in general use among young men who are in search of a better half. Ladies' saddles have nearly disappeared. Buggies! buggies! is the cry, although many possess a first-class coach. Tennessee, a few years since, was dependent on Nashville for her fine carriages, unless manufactured North. Now and then you might find a shop in the back counties, where they manufactured "horse-killers," as we termed them. Now our State nearly averages a carriage-shop of some respectability in every county.

Our State can boast of as good workmanship, perhaps, as any other of her sister States, yet our Yankee neighbors have one advantage—they have a better quality of timber, which is a very important item. Yours, fraternally,

L. W. TRUE.

[The foregoing letter is from a gentleman who was employed in our manufactory some fifteen years since as a jour. We are extremely happy to hear from him, and hope that our readers will derive some instruction from its perusal.—ED.]

COLUMBIA, N. C., November 29th, 1858.

MR. STRATTON,—Dear Sir:— * * * * There is some difference in opinion in relation to which side of a spoke should be put in front in a wheel; whether the sap or the heart side, some contending for the sap side, others for the heart. We want to know what you say, and know your reasons. It may be better for you to consult some of the most experienced of the craft, as on your decision depends a bet of $50. We gave our opinion, and, of course, the losing man claimed the highest authority, and, therefore, both decided to abide by your decision.

Yours, respectfully,

B. & C.

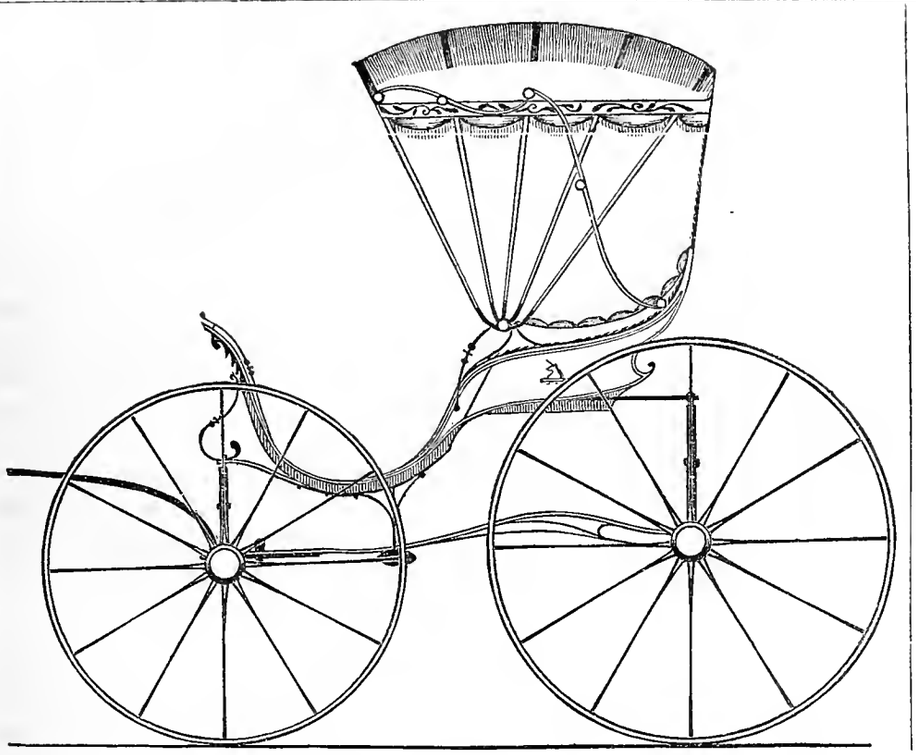
[*Answer.*—We decide that the sap side of the spoke should, in all cases, be in front. When a piece of timber is split from a log, in consequence of the sap side being the softer, the stick invariably curves with the sap side concave, and, consequently, the heart side is convex. As we require all wheels to be made dishing in front to do good service, that advantage would probably be lost in the wheels dishing on the back side, if the sap side is put on the back. It is allowed, by most persons, that the heart side of a stick is tougher, in most woods, than the sap, and this circumstance is another reason why the spoke should have the heart side back, since the draft given to a wheel by the tire, when set, gives the most strain to the back side of the spoke, and, if that back side be the sap side, it would, undoubtedly, the sooner break in the middle on the back, from the strain and such additional weight as might be put on the vehicle in use. This may, to some, appear to be a small matter, but, small as it is, its disregard is, no doubt, the very reason why some apparently otherwise well made wheels so frequently are found "dishing back" so mysteriously.—ED.]

The Historical Magazine, published at 346 Broadway, by Mr. C. Benjamin Richardson, is, in our estimation, one of the most valuable monthly magazines ever issued from the press. It is, in form, similar to the London Notes and Queries, but is far more interesting to any American, in whose bosom burns the fire of patriotism, or in whose heart *amor patria* is found. Send and get it, if you would have solid as well as interesting reading for the winter's fireside. Yearly at $2.

The Printer is the name of the neatest got up speciality to be found in America—perhaps in the world—and ought to be highly prized by the successors of Faust. We are glad to hear it meets with the success it so deservedly merits. Its editorials are written with great ability, and, on the whole, it is the *ne plus ultra* of the periodical press. Published by Henry & Huntington, at No. 1 Spruce street, at $1 a year.

FRANK LESLIE sends us his *New Family Magazine*, which appears to have already won the affections of the juvenile portion of our family amazingly. "Carriole Traveling in Norway" and some minor articles in the December number are capital. How our cotemporary manages to give his readers so large and beautifully illustrated a work as his is, for $3, is one of the mysteries of the age. If you want more than your money's worth, send to the office, 14 Frankfort street, N. Y., and get it at once.

WE find on our table *Godey's Lady's Book* for January, one of those publications which has won a world-wide popularity. It is edited by Mrs. Sarah J. Hale and Mr. L. A. Godey, who, in some mysterious manner, possess the rare talent of successfully pleasing the female portion of the community. Its literary matter is very interesting, and the illustrations very fine, making "The Book" an ornament as well as a necessity on any refined lady's centre-table. Published by L. A. Godey, 323 Chestnut street, Philadelphia, at $3 per year.



For the New York Coach-maker's Magazine.

SCALE DRAFTING, AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, OF BRIDGEPORT, CONN.

(*Continued from page* 139.)

LESSON FOURTH.

In the finishing process, I have to remark, that the wheels and top points are the parts to be inked; in starring the spokes in the centre of the wheels, as shown in the drawing (which, I think, makes a neat, light finish for light work), you can take your compass-pencil, and make a circle, the size of the star, for a guide, to have all your points an equal distance from the hub. In shading the top, and all such, a little practice, with judgment, will suffice to perfect you, after a little instruction. Commence shading very light just above the joint-props, and as the roof, or curve, recedes, shade deeper. In shading the festoons, and squabs in trimming, let the fullness be light, and shade deeper where gathered, tufted, etc. All rockers, and parts of the body that are sunk below the face of the panel, require shading, or, in other words, tinting.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME.

AMERICAN PATENTED INVENTIONS.

November 9. BLACKSMITH'S TUYERE.—Harvey S. Berry, of Rutland, Vt.: I claim a tuyere, revolving in a wind box, supplied with wind in any ordinary way, with apertures through it, so arranged as to bring more or less of them, at pleasure, to bear upon the fire, and thereby diminish the fire, and circumscribe the space affected by the blast, or enlarge the space and increase the fire.

Nov. 23. DEVICES FOR CLAMPING AND FEEDING THE BOLT IN FELLY-SAWING MACHINES.—Derwin E. Butler, of Chesterfield, Ohio: I claim, first, the bed, G, arranged with the rods, D L, arms, E, E, E", E", connected by the bar, H, and the spring, H, for the purpose of readily operating the bolt, L, for feeding and removing the same from the saws, as described.

Second. The jaw, I, formed on the bend bar, K, attached to the bed, G, and spring J, so that the jaw may be operated to grasp the bolt, and the bolt relieved therefrom by the movement of the bed, G, substantially as set forth.

MACHINE FOR SPLITTING LEATHER.—Henry E. Chapman, of Albany, N. Y.: I claim the arrangement of the dished circular knife, C, the series of split springs, G, G, G, G, and the sliding bed, D, in their relation to each other, as described.

BLACKSMITH'S TUYERE.—Benjamin E. Dixon, of Marshall, Mich.: I do not claim the mode of protecting a tuyere by the introduction of water, for that has long been known and used.

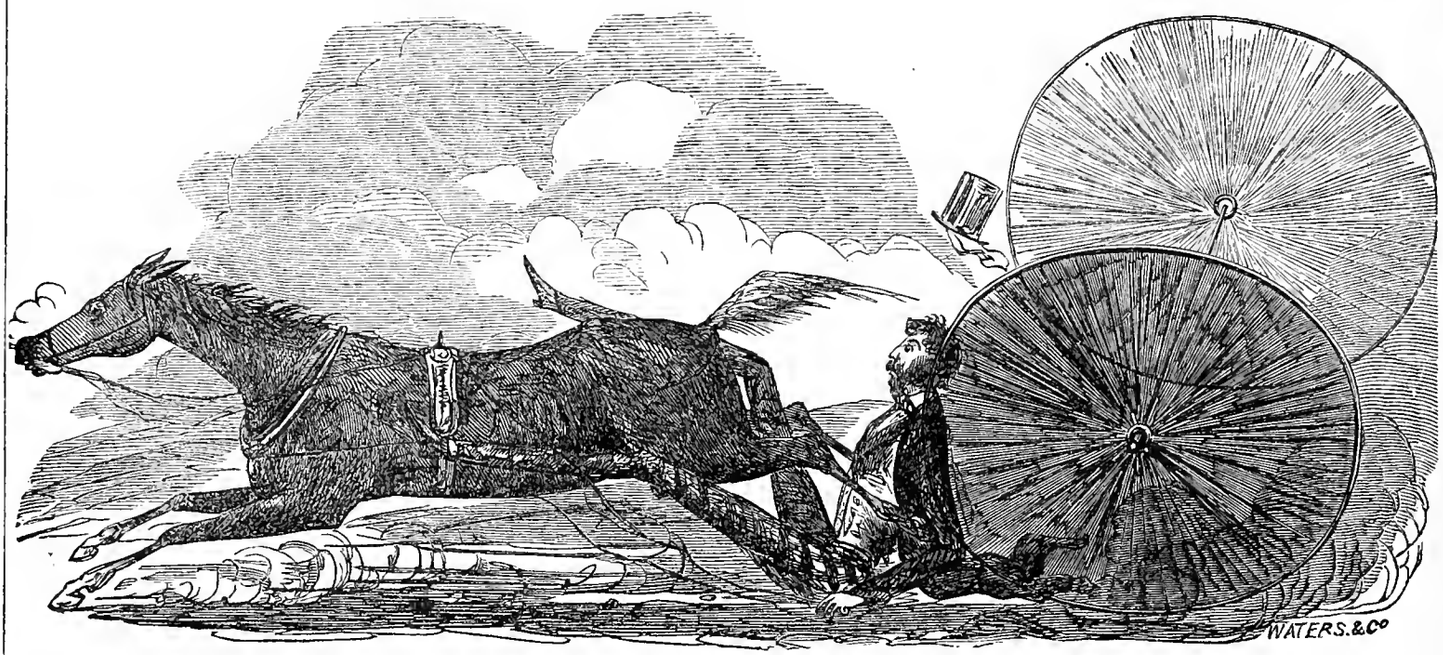
But having my improvement, and shown its applicability to water tuyeres, I claim the mode of regulating the length of the discharging orifice in a water tuyere, by means of the oblong tapered wind chamber, A, with grooves, or other equivalent device in its casing, in combination with one or more of the tapered plugs, P P, rods, R R, and the detachable cover, D, to be used for the purposes and in the manner substantially as described and set forth.

Nov. 30. ARRANGEMENT OF CUTTERS FOR TURNING HUBS.—George Cooper, of Berlin, Wis.:—I claim the arrangement in the same machine of the adjustable preparatory and main cutter stocks, D E, furnished with suitable cutters, in combination with any ordinary turning lathe or revolving centering shaft, substantially as and for the purposes set forth.

MACHINE FOR CUTTING CURVILINEAR SURFACES ON ANGULAR PIECES OF WOOD—George Muller, of Sacramento, Cal.: I claim a convex plane bit, with edges beveling inward toward the centre, for cutting smooth chamfers, of any shape, on the edges of railing for express wagons, or on other pieces of wood, and the stand or rest connected therewith in the same machine, by means of jaws movable in the frame; the rest or stand may be secured in any desired angle toward the plane to obtain a chamfer of any desired depth and bevel, and also of different shapes.

TRAVELING IN THE DANUBIAN PRINCIPALITIES—THE ARABA.—A late traveler gives us a little insight into the state of "*the art*" in a certain part of Europe, which will doubtless interest our readers. Hear him:

"On Monday I began preparations for continuing my journey to Shumla. It had been raining for nearly *ten* days, and the roads were very muddy, so that a journey of but eighteen post hours required nearly three days. The travel and transportation of goods in this province are performed mostly in *arabas*. 'Araba' is a general term, implying any kind of a vehicle. There is a variety of styles, but the best of them are low, rude wagons, without seats or springs, and generally without any iron tires to their wheels. The heavy ones are drawn by buffaloes or oxen, and the lighter ones by horses, hitched frequently four abreast, like the Wallachian diligence. After considerable search I engaged a large black covered wagon, or araba, with five very indifferent-looking little horses, to convey myself and wife, with our trunks and bedding, to Shumla, for four hundred piastres, about $16, and our goods we left to be forwarded. By advice of the British Consul we were furnished with an armed man from the pasha, who accompanied us as a guard."



LIFE SKETCHES.

SCENE SECOND.

IN our last number, Master Billy Brazen's countenance wore an air of assurance and security which his uncomfortable position, as here depicted, did not seem to warrant. His fallen condition ought to serve as a proper warning to every fast young man to take heed how he *carries* himself. Poor fellow! We fear that the injury done to his seat of honor will be irremediable; and that the damage to his nether garment will, in repairing, exceed that of our friend Marcy's, on a certain occasion, some years ago. Here we have a perfect picture of what recklessness is sure to bring a youth to in the end, and it besides will serve "to point a moral" as well as "to adorn a tale." Stop! whoa! whoa!

AN editor out west, whose pet kitten, the "solace and delight of two little children," had been killed by "some unprincipled wretch," thus gives vent to his feelings: "We pour the bitterest curses upon the marauder. May his face be constantly scratched by angry felines; may the cats of the neighborhood celebrate their nocturnal orgies under his window for ever and ever; should he ever 'keep house,' may 'that cat again' smash every bit of crockery and glass in the household, and when he eats sausages, may he always find a cat's claw or a bunch of suspicious-looking fur in the last piece of the last sausage. May he be scratched by cats, eat cats, dream of cats, and be disturbed by cats in *secula seculorum*.

A MAN in Kentucky killed a cow, a few days since, in whose stomach were found a large brass ring, a hair-pin, and a quantity of hooks and eyes. If there had also been a hoop, we might reasonably suppose that "Brindle" had swallowed the milkmaid.

IT is anounced, for the benefit of those persons who did not get a sight of the comet, that it will again appear before the public, for a *few nights* only, in the Autumn of 2147.

"WHY don't you wheel that barrow of coals, Ned?" said a learned miner to one of his sons. "It is not a very hard job; there is an inclined plane to relieve you." "Ah," replied Ned, who had more relish for wit than work, "the plane may be inclined, but hang me if I am."

"WHAT did you give for that horse, neighbor?" "My note." "Well, that was cheap enough."

A CITIZEN down East was dubbed "the little rascal." A friend once volunteered to ask him why he was called the "little rascal!" "To distinguish me from my neighbors," said he, "who are all great rascals!"

MRS. PARTINGTON said she was once son-struck, but she has no fear of it occurring again, as she gave Ike what will do him for the rest of his life for it.

MRS. JENKINS complained, in the evening, that the turkey she had eaten at Thanksgiving did not set well. "Probably," said Jenkins, "it was not a hen turkey." He got a glass of water in his face.

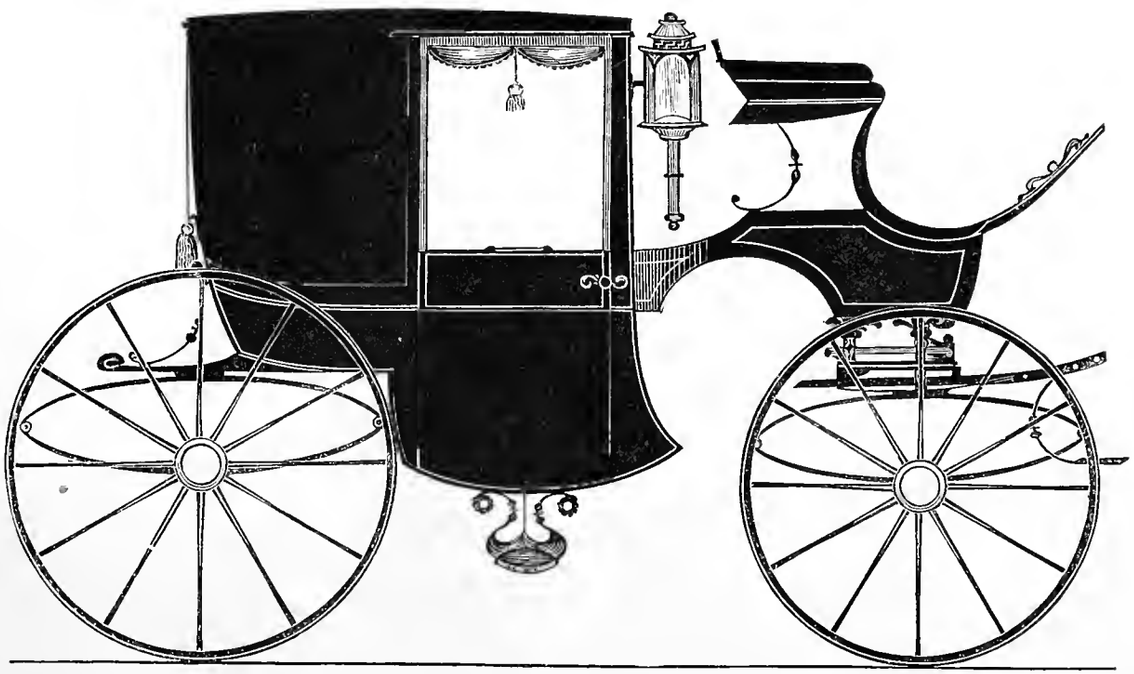
THE oldest piece of furniture is the multiplication table. It was constructed more than two thousand years ago, and is yet as good as new.

"WHEN are you going to commence the pork business?" asked a person of another, who had a sty in his eye. "Explain," said the afflicted one. "Why, I see you have your sty ready." "True," was the reply, "and I have got one hog in my eye now."

"I know I am a perfect bear in my manners," said a fine young farmer to his sweetheart. "No, indeed, you are not, John; you have never hugged me yet. You are more sheep than bear."

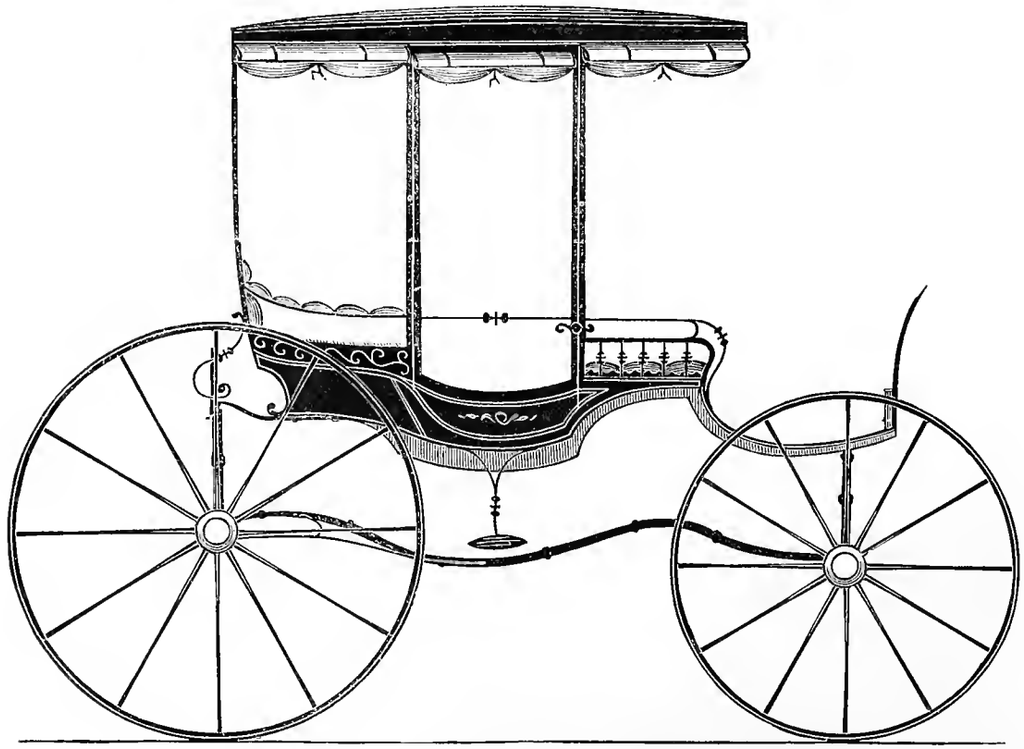
A COUNTRYMAN was dragging a calf by a rope in a cruel manner. An Irishman asked him if that was the way "he thrated a fellow craythur?"

A GENTLEMAN calling on a sailor on a rainy evening, complained that his shoes, which were thin, had admitted the water. "I am surprised, sir," said the other, "that your shoes should be leaky, when you had both pumps agoing."



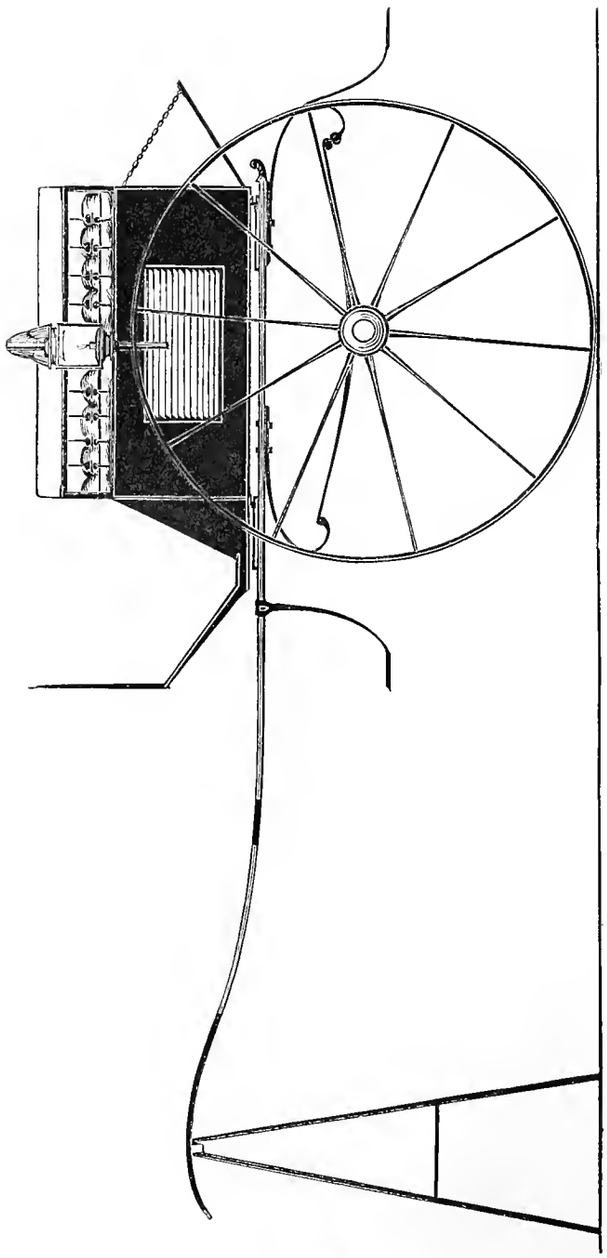
AMERICANIZED ENGLISH COUPÉ.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 169.



LIGHT ROCKAWAY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 169.



DOG-CART.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 169.

No. 1.

No. 2.

No. 3.

ORIGINAL ORNAMENTAL DESIGNS.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 172.

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, FEBRUARY, 1859. No. 9.

Miscellaneous Literature.

For the New York Coach-maker's Magazine.

EXTRACTS FROM THE DIARY OF A TRAMPING JOUR.

BY JAMES SCOTT.

On Board Steamer Belle (bound for New Orleans),
Eight o'clock, A. M., Sept. 5, 1858.

It is with feelings akin to those one might experience while contemplating the awful duty of writing his "Last Will and Testament," previous to committing suicide, that I sit down to make this entry in my diary. It may be the last. Who knows? These boat-men have as little regard for human life as Sylvanus Cobb, jr., displays in the battle scenes of his New York Ledger romances. I venture the assertion, boldly, that they are among the most liberal patrons which Col. Colt possesses; perhaps it is because it is found convenient, in order to preserve their equilibrium, to carry one of his revolvers on the right side, to balance the bowie-knife invariably "toted" on the left; but the subject is too *grave* for discussion here. Would that I could discuss it elsewhere.

What am I to do? How extricate myself from this dreadful dilemma? My name is registered as a first-class passenger on a steam-boat! I have partaken liberally of the sumptuous fare spread upon her table, and am even now the unhappy occupant of one of her state-rooms! Nor is that all! I have, with head erect and hands in my breeches pockets, strutted through her cabin with as much *outward* nonchalance as if I were master of thousands, when, in fact, I positively have not one solitary dollar in my possession. Yes! I positively appear calm enough outwardly, but within all is misery. I flatter myself that I possess some nerve; "brass," however, or, more properly speaking, down-right impudence, I am deficient in. Nothing short of arriving within a fraction of actual starvation would induce me to beg for bread, and I entertain a horror of soliciting pecuniary assistance, yet, here I am, without money, in a position which renders me liable, at any moment, to be called on to pay the sum of fifteen dollars, or else—yes! or *else;* what? I dare not conjecture. Thoughts of being ignominiously shoved ashore—jeers of passengers—scouted as an impostor—pistoled or knifed by indignant clerk—"booted" by angry captain—ducked by deck-hands—and prophetic visions of divers other calamities drive me frantic. What, in the name of all that is wretched, is to be done! Oh! for one idea—one expedient, invested with a ray of hope, to assist me in extricating myself, honorably, from this terrible scrape. Alas! there is no chance save one. I will tell the captain the story of the strange mishaps that befell me in M———. How I was driven, ay! positively *driven*, by an unfortunate combination of circumstances, to seek shelter on board his boat; how, in my eagerness to fly from the mysterious influence—the demoniacal workings of some malignant emissary of fate—I forgot that I was short of the funds necessary to pay my fare. I will appeal to his humanity, and, if I fail, my watch shall be offered as collateral security for the amount due him. True, my manner of speaking is by no means impressive; natural eloquence is not one of my gifts; and I may fail for lack of "gab." A thought strikes me. Here in my diary will I write the history of my trials—the story of my wrongs. He shall read it, and, if his heart is not of adamant, he will pity me and forgive the rash step I have taken. Here it is:

As the steamer on which I took passage at Louisville, for M———, neared the latter city, my spirits became buoyant, and the listless ennui engendered by four days of boating vanished. I am a carriage-maker by occupation, and as there are several factories there I anticipated little trouble in securing employment. The bow of the boat grated on the levee, the gang-plank was shoved on shore, and was instantly crowded with those leaving and fresh detachments coming on board. Slipping a quarter to the porter, I pointed to my baggage, which he shouldered and followed me as I left the boat. It required some display of activity and resolution to penetrate the dense crowd which thronged the plank, and I was considerably shocked to see that, in the hurry and confusion, the lady passengers failed to receive that attention to their safety which the proverbial gallantry of American gentlemen so seldom neglects to render them, and, while noticing this remission in others, I determined to set them an example of good breeding.

"Allow me to assist you!" said I, politely, to a frightened fair one who, I thought, was in imminent danger of

being precipitated into the river. She eagerly extended her hand to accept the proffered aid—her fingers were within an inch of mine, when the corner of a trunk, on the shoulder of a negro, struck me on the back of the head; I lost my balance and down I fell—spread-eagle fashion—into the dirty, muddy river. Stunned, bewildered and boiling with rage, I arose to the surface and floundered ashore. Now, I do not pretend to say that my descent into and ascent out of the water were executed in a manner to excite either awe or solemnity, but, what that crowd of heartless men, women and niggers could see in the accident to laugh at, is beyond my comprehension. I believe that I told them so in language not particularly choice, but the only effect produced was, to increase the loudness and duration of their stupid "guffaws." So, securing a hack, I jumped in and left them in disgust. On alighting at the hotel I soon had good reason to wish I had never seen the luckless vehicle, for, the driver coolly demanded five dollars extra for the damage sustained by the cushions from my dripping garments. I refused point blank—he threatened to resort to law—I waxed warm and used strong language—he retorted in the same strain, and talked of "busting" my head—a crowd collected, and, as I do hate to be gazed at, I was, at last, compelled to "cash up" to his outrageous demand. As one's opinion of a place is immediately based on the treatment one receives at the hands of its people, it is not surprising that I already entertained towards M——— and the inhabitants thereof feelings far from favorable. I had been laughed at under circumstances that would have excited commiseration in the minds of a band of Poliwog Indians, and an insolent hack-driver had taken advantage of my misfortune to bully me out of my money, for, in reality, the trimmings of his old, worn-out coach sustained no damage, as they were thread-bare, and partly covered with slip-lining. It was only after much reasoning with myself, that I abandoned the idea of leaving again on the first downward boat; but, I thought it best to give the place a fair trial, so, donning a dry suit of clothes, I sallied forth in the search of a job.

Making inquiry at my hotel, I ascertained the whereabouts of the various carriage shops, one of which I soon found. I entered the wood-shop and inquired for the foreman. He was pointed out to me, and I approached his bench, asking politely if he wished to employ a body-maker. As he raised his eyes from his work, I thought, by their red and glassy appearance and the disagreeable odor of his breath, that he was partially intoxicated. Eying me sulkily for a few seconds, he growlingly replied:

"Nary body-maker!"

"Can you tell me," I continued, "if any of the shops in town need one?"

"Don't know," he said, leaning on his bench; "what kind of bodies can you build? You look too young to know much about the business. Run-away 'prentice, I reckon, by your looks."

"No, sir!" I answered, indignantly, "I am not a run-away apprentice, and I can build both light and standing-top work as well as the majority of men." The three hands who were engaged in the shop had stopped by this time, and were listening and regarding us lazily.

"Oh!" resumed the "boss," winking at his men, "you can put up standing-top work, can you? Well, in that case, I can give you a job. I want a standing-top *wheel-barrow* built, do you think you can do it?"

"Yes, I think I can," I said, bitterly, "and I will make a nice job of it, for I suppose you mean to use it yourself; as, judging from the *skill* displayed on that *thing* you are working on, trundling the wheel-barrow on the railroad would suit your *talents* much better than body-making."

A shout of laughter, from his "satellites," greeted this caustic retort, but the foreman, with a terrible oath, seized a heavy mallet and rushed at me furiously. I am opposed to fighting, whenever it can be avoided, so I made for the door with the speed of a locomotive. Just as I was making a flying leap over two trestles and the chopping block, the mallet whizzed past me and struck full in the stomach of an unfortunate darkey who happened to be entering at the moment. With a terrific howl he bent over like a half-shut jack-knife, when, as if to put the finishing stroke to the catastrophe, my leap unhappily terminated just between his shoulders; completing the bending operation—bringing his head in violent collision with the floor—extracting another howl louder and longer than the first, and sending me plowing head first through the dust and shavings. It was but the work of a moment to gain my legs and reach the street, down which I exhibited a very creditable specimen of fast pedestrianism, which was, however, interrupted in rather a summary manner by a couple of gents in blue coats and glazed caps, who marched me back to the carriage shop, where I witnessed, with diabolical satisfaction, the arrest of the whole party, nigger and all. We were taken before the Recorder, tried for riot, and indiscriminately fined ten dollars apiece. There was even-handed justice for you! Riot indeed! what had I done that could, by the utmost stretch of gutta percha imagination, be called riotous? True, I had resented a gross, unmitigated insult; but is that a finable offense? I contend that in civilized communities it is not: on the contrary, it is a commendable exhibition of spirit. And then, to think that the miserable drunken brute, who was the real criminal, should be let off with a single fine; and that fine the same amount as mine, who was innocent of all offense. Oh! justice, hide thy blushing face in shame at such mockery. Oh! what bitterness was in my heart—what dire yearnings for vengeance were mine, as I strode with rapid steps toward my hotel. My mind was fixed now—unalterably fixed. I would leave the accursed place where I had been insulted, swindled, and maltreated—not another hour would I remain—but how was it to be done? The hack-driver and his compeer the Recorder had reduced my cash in hand to two dollars and a half; yes! two paltry dollars and fifty cents was the extent of my pile. The thought nearly crazed me. Then there was my hotel bill; but that couldn't be much, as I had only occupied a room long enough to change my clothing. I would go and settle *that* before it amounted to any more. Entering the office, I inquired the amount of my indebtedness.

"*Two dollars*," said the bewhiskered and bejeweled clerk, politely.

I fairly staggered. The shock was positively stunning, and I nearly fainted. Was this a regular conspiracy to rob me? Yes, yes, I thought, it is but too apparent. Recovering by an immense effort, I ventured to suggest the possibility of his being mistaken. I had only occupied the room half an hour, and had had no meals.

"Can't help that, sir. When a gentleman registers his name, and engages a room, we charge, whether he eats or sleeps, until he departs. Your bill is in strict accordance with our rules."

Frantically, I dashed my two-dollar bill on the counter, and, in a voice quivering with excitement, ordered my baggage to be brought down from my room. Rushing madly to the street, I yelled for the nearest hack-driver. My trunk was placed on the dicky-seat, and I sprang inside.

"Drive to the Levee!" I thundered, "as if your life depended on it."

"Quarter, sir, if you please," said the porter, through the window.

This was *too* much. I was too far gone to speak, but I made a pass at him with my fist, which caused the withdrawal of his head as instantaneously as if a rattlesnake had made a dash at him.

I will not attempt to describe my feelings during that ride. 'Tis enough that the strongest was a feverish desire to escape from my fiendish persecutors. On reaching the landing, I inquired for the first boat that would leave, and, penniless as I was, rushed on board, fearing no worse treatment than I had been subjected to——

Thus far had I progressed with my sad narrative, when the door of my state-room opened, and ——could I believe my eyes?—there stood an old and valued shopmate; one whom I had not seen for several years. He greeted me heartily, and I in turn was delighted to look once more on a friendly face. He had got on the boat at some town we had stopped at, while I was in my state-room writing—had seen my name on the passenger list, sought me in my berth, and was, as he warmly expressed it, "mighty glad to see me." My unhappy adventures were rehearsed to him, at which he actually *laughed!* No laughing matter, I thought. He was flush, he said, and would lend me fifty dollars, on my individual note. Tears rolled down my cheeks, as I wrung his hand, and the bell was *rung* for dinner.

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER IX.

Chariots at the Olympian Games, the race with which was the most important—The victory second in honor only to that of a conqueror in battle—Cypselus, Democratus, Cimon, and Alcibiades, all successful victors in these races—The starting—The Circensian Games at Rome described—Skill, the result of much practice, necessary to success in the race—The philosopher and the expert chariot-driver—Sophocles' poetical description and the fatal result of Orestes' contest.

Nonne vides? præcipiti certamine campum
Corripere, ruuntque effusi carcere currus,
Quum spes arrectæ juvenum exultantiaque haurit
Corda pavor pulsans: illi instant verbere torto,
Et proni dant lora; volat vi fervidus axis; etc.*
VIRGIL'S GEOR., lib. iii., c. 103—112.

AT the present time, when there is a disposition shown among the descendants of ancient Greece for reviving the Olympian Games, it may not be unacceptable to a portion of our readers if, in the present article, we incidentally revert to that interesting subject.

Of all the games celebrated in ancient Greece during her palmiest days, none have excelled, or even approached in renown, those of the Olympian. They occupied the first place—instituted as they had been by Hercules, the first of heroes, in honor of Jupiter, the greatest of gods—in their pantheon. In these games, the chariot-races were the most distinguished, and, consequently, occupied the attention of the most noble and ambitious of the age. Among the Greeks nothing was considered comparable to a victory in these races, since it was looked upon as the perfection of human glory, and has been declared by a Roman poet to constitute the victor something more than human. *They were no longer men, but gods.*

SITE OF THE ANCIENT CHARIOT-RACES.

Palmaque nobilis
Terrarum dominos evehit ad Deos.
HOR., OD. I., lib. i.

The honor transmitted to this species of amusement undoubtedly was derived, in a great measure, from the ancient custom of fighting from chariots, as we have already shown in these pages, and from the fact, that none other than kings, distinguished heroes, and great men were allowed to contend in the chariot-races for victory and a crown of laurel. We are told that kings, in person, eagerly contended for these high honors, under the impression that the title of victor in these races was scarcely inferior to that of a conqueror in a battle, and that the victor's wreath, composed as it was of olive, pine, and parsley, would give additional dignity to the splendors of a throne. Pindar, one of the sweetest of Grecian poets, in one of his Odes, teaches us that Gelon and Hiero, kings of Syracuse, held this opinion, of which we find numerous other examples in classical authors. Cypselus, the usurper of the government of Corinth, maintained a stud of horses expressly for the chariot-races. His son Miltiades, on one occasion, won the prize at the chariot-race, which served to place his family in the highest respectability. Democratus, king of Lacedæmon, was renowned for the honor he had conferred on his native city by a victory, in one of these games, with

* Hast thou beheld, when from the goal they start,
The youthful charioteers, with heaving heart,
Rush to the race; and, panting, scarcely bear
The extremes of fev'rish hope and chilling fear
Stoop to the reins, and lash with all their force:
The flying chariot kindles in the course;
And now alow, and now aloft they fly,
As borne through air, and seem to touch the sky.
No stop, no stay, but clouds of sand arise,
Spurned and cast backward on the followers' eyes.
DRYDEN.

a four-horse chariot, he being the only one in Sparta ever so successful. Cimon, who had been banished from Athens by Pisistratus, during his exile at Marathon had the good fortune to obtain the prize in the four-horse chariot-race, and, having gained this victory, he transferred the honor to Miltiades, his brother, and, afterwards, in the next Olympiad, having obtained a second victory with the same mares, he permitted Pisistratus to be proclaimed victor, by which generosity he returned home under certain terms. Afterwards he gained a third victory with the same mares.

Alcibiades was noted for the great number of chariots which he kept, and for the superior breed of his horses. He sent seven chariots at one time to the Olympic Games, a thing never done by any other, whether king or private person. The first, the second, and the fourth prizes, according to Thucydides, he bore away at once, which exceeded everything performed by the most ambitious in that line. These he won in person. Afterwards he won two other victories in these games by proxy. On one occasion his passion for these sports appears to have got him into trouble. It seems there was at Athens one Diomedes, a man of good character, and a friend of Alcibiades, who had a strong desire of winning a prize in the Olympic races, and, being told that there was a chariot to be sold which belonged to the city of Argos, where Alcibiades had a strong interest, he persuaded him to purchase it for him—from which circumstance we infer chariots were scarce in that market. Alcibiades did buy it, and ungenerously kept it for his own use, leaving Diomedes to vent his rage in calling gods and men to bear witness of the injustice done him. There seems to have been a suit brought against the great sportsman by the disappointed amateur, an account of which may be found in an oration by Isocrates, wherein a defense is made in favor of Alcibiades, then a youth. The expense Alcibiades was at in sacrifices to Jupiter and in feasting his friends, who had assisted him on the occason of his personal contest in the games, was very great, from which we infer his joy was unbounded.

On the day Alexander was born, Philip, his father, king of Macedon, obtained a victory in the chariot-races, of which he was so proud that he afterwards had the event recorded in an impression on his coins. This passion, however, does not appear to have been inherited by his son; for, when asked by the people around him whether he would not run in the Olympic race, he simply answered: "Yes, if I had kings for my antagonists."

Chariots were usually drawn by two, or four horses abreast, but, in some instances, that number of mules were substituted. These chariots at a given signal all started off together from *the carceres*—a Latin term for "starting place"—the position of each chariot having previously been determined by lot, and the individual fortunate enough to obtain a position at the left hand station, was supposed to have gained something towards a victory, as in turning around the boundary—providing he did not get too far behind before turning it—the inner chariot had less distance to run than those on the right and nearer the outer side of the circus. Running twelve times around, he, whose chariot came in first on the last round, was proclaimed victor.

With no intention of violating chronology, we may here remark that among the Romans, subsequently, at the Circensian games, celebrated in the Circus Maximus at different periods of the year, the usual number of chariots in each race was four. The charioteers were divided into four factions or companies, each distinguished by four colors, representing the four seasons; green for the Spring, red for the Summer, azure for the Autumn, and white for the Winter. Originally, in these races, but two chariots were allowed, but Domitian afterward increased the number to six, appointing two new factions, the golden and the purple, although the usual number was four. These chariots being in position side-by-side, with a white line in front held up by men appointed for this office, this line at a given signal was thrown down, when all started, running seven times around the course. The Roman charioteer drove his horses with the reins thrown around his neck, so as to be prepared to check them, by throwing his full weight upon the reins at full speed. This, however, was a dangerous practice, and proved the death of Hypolitas. To prevent such an occurrence happening again, each charioteer afterwards carried a hooked knife at his waist, so that in an emergency he might cut the reins.

Returning again to the Olympic chariot races, from which we have digressed in noticing the Circensian, we remark that much skill was required in those who followed the profession of charioteers or drivers, which could only be attained by constant practice; consequently the choice of persons to that office was not a matter of small moment. We learn from history that drivers were chosen, necessarily, from the highest ranks in society, as the position was one of the greatest responsibility. It required no small ingenuity, in combination with constant practice, to qualify the driver so as to expertly manage his horses, so that in turning the boundary his lack of skill might not terminate in a loss of the prize, and likewise in a loss of life, scarcely less valuable. This skill displayed by some individuals was truly astonishing. Plato mentions one Annicerus, a native of Africa, who had acquired great dexterity in guiding a chariot. This African was desirous of giving the celebrated philosopher a proof of his skill, and in presence of a great multitude he drove several times around the Academy with so steady a rein as to have left but one print of his chariot wheels. With a poetical description of the chariot-race by Orestes, taken from the Electra of Sophocles, we will close this article.

"Rang out the brazen trump! Away they bound,
Cheer the hot steeds and shake the slackened reins;
As with a body, the large space is filled
With the huge clangor of the rattling cars;
High whirl aloft the dust clouds;—blent together,
Each presses each—and the lash rings—and loud
Snort the wild steeds, and from their fiery breath,
Along their manes, and down the circling wheels,
Scatter the flaking foam. Orestes still,
Aye, as he swept around the perilous pillar,
Last in the course, wheel'd in the rushing axle;
The left rein curbed,—that on the dexter hand
Flung loose—so on erect the chariot rolled!
Sudden the Œnian's fierce and headlong steeds
Broke from the bit—and, as the seventh time now
The course was circled, on the Lybian car
Dash'd with wild fronts:—then order changed to ruin:
Car crushed on car—the wide Crissæan plain
Was, sea-like, strewn with wrecks; the Athenian saw,
Slackened his speed, and, wheeling round the marge,
Unscathed and skillful, in the midmost space,
Left the wild tumult of that tossing storm.
Behind Orestes, hitherto the last,
Had yet kept back his coursers for the close;
Now one sole rival left—on, on he flew,
And the sharp sound of the impelling scourge
Rang in the keen ears of the flying steeds,—
He nears,—he reaches—they are side by side;
Now one—now th' other—by a length the victor.
The courses all are past—the wheels erect—
All safe—when, as the hurrying coursers round
The fatal pillars dash'd the wretched boy
Slackened the *left* rein:—on the column's edge
Creak'd the frail axle—headlong from the car,
Caught and meshed within the reins, he fell;
And, masterless, the mad steeds raged along!"

S.

For the N. Y. Coach-maker's Magazine.

GEOMETRY OF CARRIAGE ARCHITECTURE.

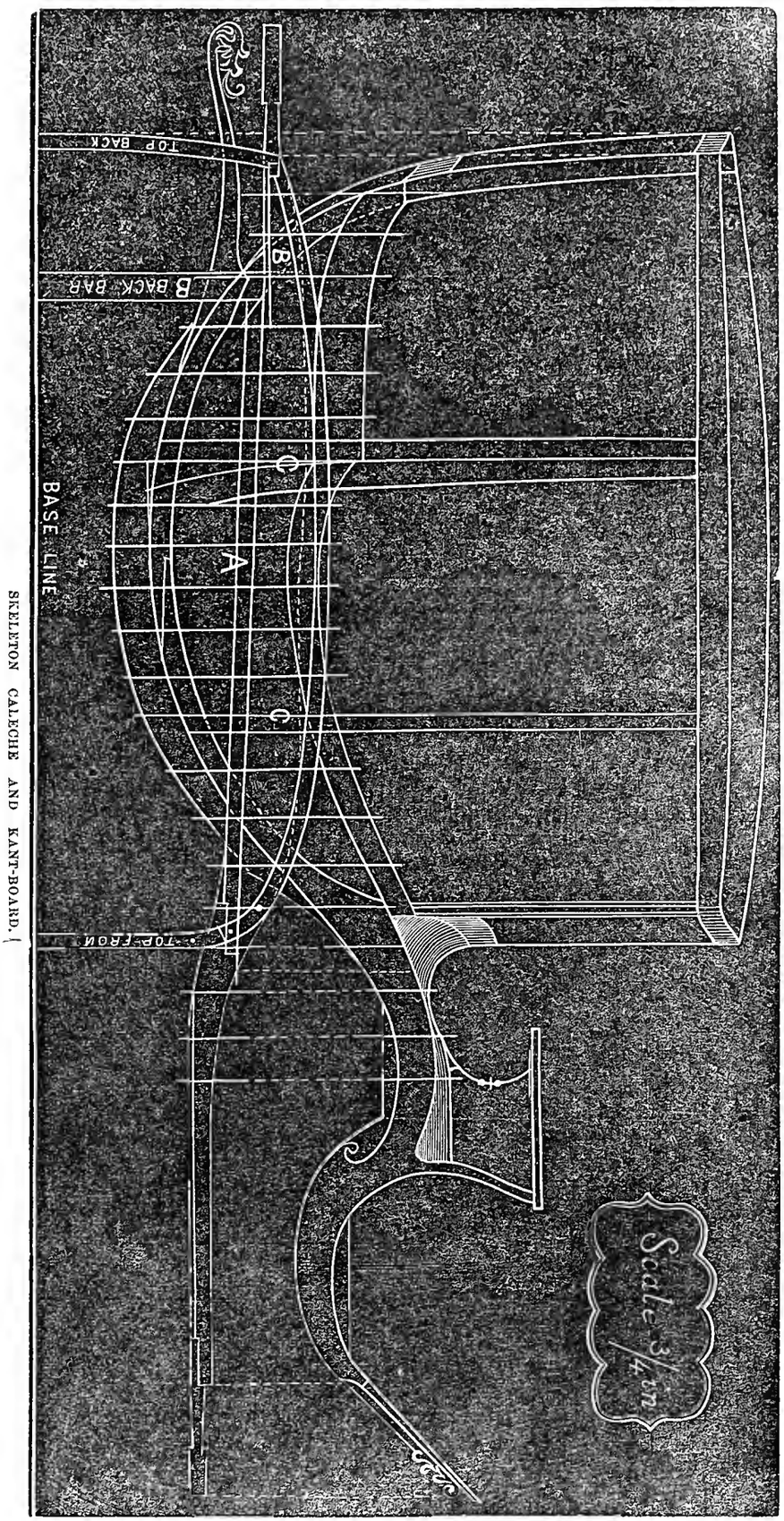
BY A PRACTICAL COACH-MAKER.

PART SECOND.—BODY-MAKING.

Continued from page 146.

As I promised in my last to produce a contracted body for our next consideration, I shall give a round front, and swell-back crane-neck caleche coach, contracted in the body from the back-bottom bar to the round front 4½ inches, giving a body 3 feet 8 inches on the hind seat, and 2 feet 6 inches wide on the front of the body. A man that can build this job correctly may be called a crack body-maker, it being one of the most difficult jobs to encounter, as far as lines are concerned.

When your draft is on the board, all correct, commence and lay off your kant-board by drawing a base-line, then find out how wide you want your seat between pillars, the width of your brakes, and the width of the front—which varies to a man's notion—but look out, and see that you don't get too wide a body for a narrow track. When you have your widths laid down on your kant-board, from the base-line—that being the centre line of the body—you can proceed and calculate for the swell of the body, in the same manner as in the preceding article, and when you want the length of any particular bar, draw a perpendicular line from your point of study, on the body, across the kant-board. In forming the round-front you must bring it into the side-swell, without any sudden angle. From the round-front to the neck there must be judgment used as well as lines, but in this instance you must chiefly depend on the former. The best method of forming the round on the neck would be to get a piece of well-seasoned white-wood, and fit it on the top of the ash to the shape you require your front, and rabbeted for your top panel, from the panel to the side moulding to be rounded in accordance with the front of the body. The swell-back, also, requires more judgment than lines. Our present calculation is for a 2-inch swell. On the back of the top rail it gradually diminishes until it reaches the back-bottom bar, when it terminates, from which point to the B belt-rail you will have to put in about six good and stiff strainers, to keep the panel in its place, as there is a very great purchase caused by the double swell. In trying up your bottom-sides you will have to bevel them to match the contraction,



SKELETON CALECHE AND KANT-BOARD.

which can be obtained by setting your bevel from the rocker-line, A, to any of the perpendicular lines; then, by using the horizontal square, you can shave off to the bevel at each end of the bottom-side, and by shifting the pattern, and marking off the outside beveling with the inside, you

will have your bottom-side beveled all through. In pricking off for the swell, you will have to use your bevel instead of a square for cross-lining your bottom-sides, &c. The most correct way to frame in the back-pillar is, to square it with the base-line; and it is the most simple and easy way. The manner of procuring its exact position on the bottom-side is, by drawing a perpendicular line from the foot of the pillar across the kant-board, and another from the extreme end of the bottom-side. At this point mark $\frac{3}{4}$ of an inch from the face of the bottom-side, and draw line B, which is the face of the back-pillar; then with your dividers you can find the difference, at the foot of the pillar, betwen line B and the contraction line of the bottom-side, and mark it on the latter. To have your standing pillars stand square with one another, you must bevel the foot with the rocker-line, and the perpendicular lines; and for the outside, or back, you will set your bevel by line C and the swell-line. There are two ways of framing the round-front corners. Some frame in two pillars—one where the round commences at the side, and the other where it terminates at the front—about 8 inches apart, and paneled up. Another way is, to frame in a solid piece of well-seasoned timber, the full size of the corner, and hollow it on the inside. I would be in favor of the latter, if I could get the right kind of timber. The irregular dotted line on the kant-board is the outside line of the bottom-side, according to the rule; but, I like to shave off the bottom-side a little more, between the front-corner pillar and front door, otherwise there will appear a hump in that locality. This diagram will be easier understood, if the previous articles on the square-rule were studied correctly, as I mean to repeat as little as possible.

For the New York Coach-maker's Magazine.

THE CANVASSER'S JOURNAL.

BY E. W. S.

MR. EDITOR—Dear Sir:—Writing for a Magazine is not a very easy task, especially for one like myself, who has never before attempted to write an article for the Press, in his life; but, as I promised you, when I left your office on the morning of the first of November, that I would give you a history of my travels, I must try and do so.

Taking the steamer Elizabeth City at Pier 3 N. R., on passing down the Bay, along the shores of that most beautiful of islands, Staten Island, the traveler's eye rests on some of the most beautiful and picturesque landscape scenery he has ever beheld. After stopping to land passengers at Manshollow and Bergen-point, both of which places have a romantic look, we finally reached Elizabethport, where, taking the cars on the N. J. Central R. R., I was whirled along at lightning speed, stopping occasionally at several places along the route, where, notwithstanding the hard times, and the prospects of a still harder winter before them, the craft, to their honor be it said, subscribed pretty liberally. In my route I visited Belvidere, where I succeeded in taking a few subscribers; and, by the advice of numerous friends, I went out of my intended route to the, although but small, yet thriving towns of Allentown and Bethlehem, at both which places, considering their size, I added to the list of patrons to our Magazine. Afterwards I returned to Easton, and from thence to Philadelphia, stopping at Flemington and Lancaster on the way.

On my arrival in Philadelphia, I started immediately for the Post-office, where I found letters from you, directing me to call on Mr. Wm. D. Rogers. I did as directed, introduced myself, and was as cordially received by Mr. R. as though I had been an old acquaintance. Having requested the privilege of canvassing his factory, he readily gave his consent—at the same time remarking, that as an agent had previously canvassed the same thoroughly, and could not even get one subscriber, he did not think I could do anything, but still I was welcome to try. I did so, and, notwithstanding my predecessor's unsuccessful trial, succeeded in taking quite a large club.

The general opinion among those who had formerly subscribed by letter (of which I found a considerable number) was, that the Magazine had been of great benefit to them. I am happy to state that, after a hard trial, Mr. Rogers, of Philadelphia, consented to give us his portrait for the January or February number. I also solicited his brother-in-law, Mr. Joseph Iredell, whom I found a very pleasant as well as an intelligent gentleman, to write his biography, to which he consented.

After spending five or six days in the city, and taking subscribers far exceeding the number I expected to, I finally left Philadelphia on the 16th of November for Wilmington and Baltimore, at both of which places I did quite as well, and so on to York. Finishing up my business there, I started for the Depot, intending to take the 10 o'clock train and so on to Hanover junction, and meet the next train for Hanover, and would have succeeded, had it not been for the unexpected detention of the down train, which did not arrive until an hour after it was due, and then having to wait half an hour for the up train, there being but a single track, which I must confess is a great inconvenience to travelers, and, what is more, a great nuisance, for when we arrived at the junction the cars had been gone one hour, and, as the next train did not leave until half-past four, we were compelled to wait the agreeable length of four hours and a half time, after which, jumping on the cars, we started, and how long would you think it took us to travel thirteen miles? Methinks I hear you answer, about forty-five minutes; but you are far from right, it having taken us *but* one hour and three-quarters. There was one jovial fellow with us who reckoned that a roach could have started at the same time, and have reached Hanover an hour before we did, and I guess he was not far out of the way. The same wag proposed that we get out and help the "Black-horse" along by pushing on the rear car; but, as most of us had taken the cushions off the seats either in front or back of us, and so made (considering the circumstances) quite a comfortable bed, expecting to reach Hanover about ten the next morning, the proposition was not generally taken up.

We stopped only six times on the route, once for the purpose of taking in wood, another to take in water, and the other four times I did not think it worth while to take the trouble to go on the platform and ascertain, but I presume it was to place some of the rails in their places. However, at last the train stopped for the seventh time, and to the great joy of the passengers. The conductor put his head in at the door, and sleepily sang out Hano. (meaning Hanover), to which a fellow passenger echoed, "Friends! you need not be in a hurry, and as the cars will probably stop half an hour or so, I guess I might as well run up and see a friend of mine who lives about five miles distant, and have a short conversation with him in the way

of business, and then run on and catch the cars before they get half way to Gettysburg, which will be better than to wait here for the train to go on."

Finishing up my business at Hanover, I started on Monday morning for Gettysburg, at which place I understood there were a number of shops, and on arriving there I found that about a year ago there was a great deal done in the carriage business, but not much of late, owing, partly, to the hard times. From there I retraced my steps back to Hanover, and—but spare me the details of my journey—back by that road. Suffice it to say that I got back somehow, and, taking the cars on the Pennsylvania Central R. R., was whirled along at the rate of twenty-five miles an hour, across the Alleghany Mountains, and all went well until within eighty-two miles of Pittsburg, when we were awakened by a tremendous jar, and, upon coming to our senses, found that the train had run off the track, and such was the headway of the locomotive that it shot on like a wild demon, spitting fire and threatening destruction to all obstacles that impeded its progress, until it had run the distance of about four hundred rods, having drawn the train all of that distance, excepting about thirty yards, when fortunately it was brought to a standstill by the combined efforts of the engineer and fireman, who stuck to their posts like brave fellows that they were; and notwithstanding the fact that the wheels were most of them torn from under the cars, and the latter considerably damaged, yet, strange as it may seem, not a soul was injured. Soon signals were sent off both ways, and in one hour and a quarter after the accident we had a new train on hand to carry us to our point of destination. At Pittsburg, or, as some have more properly styled it, *Smokeytown*, I found business very dull; but, notwithstanding, I took a number of subscribers, and the following night started on my homeward journey, stopping at Harrisburg, Lancaster and a number of other small places too numerous to mention, and among the rest was Mount Joy, where I met with Mr. Landis, who is proprietor of the largest shop in the place, and one of the warmest friends of the Magazine, with whom I put up all night, and as I had some business to finish at Philadelphia I also stopped there. Leaving Philadelphia, and owing to the fact that I was taken sick, I passed over some of the places I had intended visiting, but stopped at Rahway, where I found business very brisk, and called on some of our old friends, among whom were Mr. Abram Terrill, and Mr. Duxbury, foreman of Mr. Mooney's shop. Mr. Duxbury promised me that he would try and send you something new, in the way of Carriage drafts. Finishing up my business there, I took the half-past three o'clock, P. M., train for home.

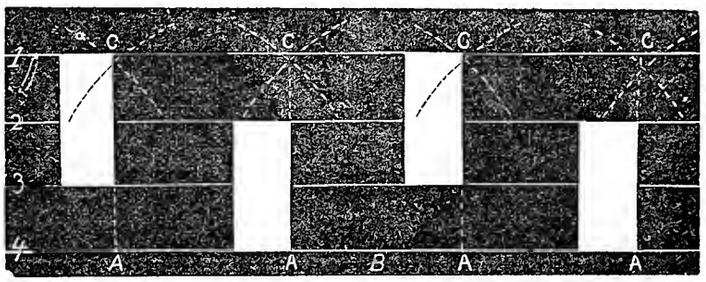
SOMETHING ABOUT WHEELS—THEORETICAL AND PRACTICAL.

(THIRD ARTICLE.)

ALTHOUGH wheel-making is not an invention of yesterday, but has had the experience of centuries, and the study of intelligent men of some of the most enlightened nations of the world, still, at this late day, one can scarcely find any two persons who will agree in their theories. This declaration will undoubtedly strike the minds of some, outside of the craft, as being very singular, yet, with all this singularity, it is nevertheless a fact, that can very easily be proved by conversation with any two workmen. There are several reasons for this diversity in opinion: the qualities of the timber employed in the construction; the effects of the roads in the different localities where used; much is also due to the degrees of ability employed in the manufacture, but full as much to those using the carriage. Some men will wear a carriage out in one or two years, while a neighbor would make the same vehicle, with the same wheels, last six or eight, or even ten.

Formerly, when the wheels of all vehicles were made very low and heavy, compared with those of our time, twelve and fourteen spokes were employed as the standard number, but, after bent rims came into use, fourteen and sixteen were scarcely thought sufficient to prevent the "rim" from "caving in," and consequently some "genius" conceived the idea of "sticking in" twenty in ten mortises—two tenons in one mortise—which, on trial, has proved to be, in most instances, a failure, for we have found the work of some of the most strenuous advocates for this plan fall to pieces in a very short time, in using; but since our hubs have "become smaller by degrees and beautifully less," at least in the eyes of customers, we cannot find room in a hub for many.* Probably, in making very light wheels, fourteen spokes, *well put in* a hub, will be found the most efficient.

Having determined the number of our spokes in each wheel, we will in the next place proceed and lay out the mortises in the old-fashioned way, for the *edification* of our young readers, merely premising that, in order to exhibit the plan the more intelligibly, we have changed the rounded hub to a plain drawn-out surface.



THE HUB "LAID OUT" FOR MORTISING.

Now, we will suppose that 1, 2, 3 and 4 are the four lines draw with the compasses around a hub. A, A, A, A, are the distances apart we wish the mortises to be, less the width of the mortise, or the one-fourteenth part of the circumference of our hub, add to this one-half this distance, as at B, then set the compasses with one foot at the first A, the other at B, then, by placing the compasses thus set at each A, and "sweeping" alternately all around the hub, we obtain the sweeps at C, as shown in the diagram; thus correctly insuring a mortise exactly parallel with the hub.

A more simple manner of laying out hubs is, after "stepping off" the distances, as at A, A, A, A, to place the hub endwise on a level bench, and then, with the "try-square" and "marking-awl," mark the places for the mortises. Probably the hand-workman will not only find this the most sim-

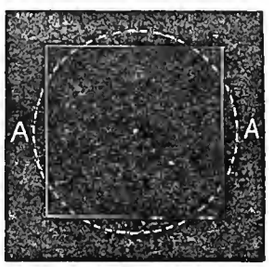
* It has long since been a conviction in our mind that a mortise and tenon in the dove-tail form, for carriage hubs, was preferable to all others. This, we believe, is still employed by wheelwrights in England, and was in this country, to a certain extent, until a very recent date, and has always been found to contribute to securing the spoke permanently in the hub. We know not why it was abandoned—probably because no machinery was yet invented by which it could be conveniently done. We are happy to find that this difficulty has been obviated, by the recently invented "Dove-tail Mortising Machine."

ple, but also the more correct way of "laying out a hub," since it evidently must insure his mortises parallel with the length of his hub.

Presuming the workman knows enough to make his mortises, from what we have previously written, having his hub banded, and his spokes well dried, either by the fire or the sun, they are now ready for driving. Before we drive our spokes, we would remark, that driving through streets paved with cobble-stones gives a certain tremulous motion to spokes, by the wheels falling into the interstices, which operates on the hub spoke-tenons with such effect as to give them the appearance of premature working in the hub, where the mortises are all set straight, but when they are set in and out, this defect is not seen, since the front spoke and its neighbor, the back one, act as braces to each other. These remarks are intended to be applied more especially to light wheels.

Is the wagon, for which the wheels are designed, to be exposed to the action of the weather, in business purposes, then drive the spokes in ground white-lead, thinned with a little spirits of turpentine—this will not so soon be affected by moisture as will glue; if for pleasure or light work, as this is protected by paint, use the best Russian, or bone glue, as hot as possible.

Having driven our spokes and "marked them off" for the "tangs"—which for the purpose of labor-saving are commonly made round—we are now ready for the fellies. We would remark here, that from actual experiment we are certain that a square tenon to the spoke, fitted into a square mortise in the felly, or rim, will insure a much more serviceable wheel than the common mode will, as the following diagram will show.



Until invention furnishes us with some more convenient and expeditious "tool" for cutting square "tangs," we have no doubt but that the round tenon will continue to be used; but then, it requires no very "mechanical eye" to see at a glance the advantages in the square "tang." Just measure across the circle at A, A, then across the square, and tell me how much shorter it measures. The difference in wood will be preserved to the fellies outside of the "tangs." We are now ready for

THE FELLIES.

These, in the incipient state of manufacture, were the rudest things imaginable, merely the branches of trees cut into segments of the required length, and hewn circular on the outer circumference, which, of course, left the rim weakest at the joints. This weakness soon became manifest, and this circumstance, doubtless, first suggested the invention of "the strake-tire." In some of the South American States (Buenos Ayres, for instance), the native-made cart wheels are still made in this most primitive fashion, which, in the expressive language of a worthy sea-captain, a friend of ours, "are neither round, square, nor oval," showing that the degenerated brothers of the craft in that semi-civilized region are not experts.

Much has been said on the subject of rimming wheels, in a publication recently defunct. We shall take this opportunity to give our own opinion, somewhat by way of criticism. We have no idea that short fellies, sawn from the plank, will ever be superseded by any other, entirely; nor are we ready to say, with the author of *English Pleasure Carriages*, that fellies in two segments have no advantages. Some ancient carts and wagons had wheels made of a solid circle of wood; such are still running in the south of Europe, at the present day. Anciently the felly, or wooden circumference, was made of some elastic wood, such as the poplar, or wild fig. For business purposes we have found that the best white ash of New England growth has invariably done the best service, as short fellies, since by exposure to the sun and rain it does not check as badly as oak. For rims of light work we would use no other than hickory of the very best quality.

We read in an old treatise on wheels,* "the fellies on which the rims (tires) are fixed should, in carriages, be three inches and a quarter deep, and in wagons four inches." What say you to this, ye modern customers who grumble because wheels made now do not stand thirty years? Can you reasonably ask us to build wheels, with one-inch rims, to wear as long as those did with three and a half or four inches? Rimmed wheels should have the "tangs" neatly fitted in the felly and not wedged, since where this is done they are very liable to split. To saw a rim into segments, as recommended by some theorists, we consider a bad practice, and no one who thinks for himself will take such advice. Fellies in segments, with the joints at the alternate "tang," is a still more reprehensible way of "putting on" the fellies. We have seen such failing in four weeks, and had to be new "rimmed."

For the New York Coach-Maker's Magazine.

THE THREE-FOLD NATURE OF MAN.

BY CHARLES C. KEYS.

No. V.

In the present number we propose to consider the duties which man owes to himself as an intellectual being. The character of man, for high mental endowments and for superior knowledge, should not be ignored; and although, as possessing a physical organization, he needs to be concerned in no small degree with the wants and interests of the body, yet, in proportion as the mind is a higher and more important department of our being, should we bestow increased care and diligence upon its proper development and cultivation. It is susceptible of almost indefinite improvement. Its range of vision may be enlarged, its capacity may be increased, the objects of its apprehension and knowledge may be greatly multiplied, and its various powers may be rendered more vigorous and better capable of performing their appropriate functions. The judgment, the memory, the imagination, and all the other mental faculties are improved in proportion as they are employed for those legitimate purposes which were contemplated when we were so richly endowed by our all-wise and munificent Creator. Without this exercise and improvement of the intellectual powers, they must in a great degree remain dormant. No man fully developes himself in a passive state. Activity is the great universal law of life and health in every department of existence. A man ceases to exercise his bodily organs, and he soon becomes sickly, and finally

* See "The Coach-makers' and Wheelwrights' Complete Guide," with neither the author's name, place of publication, nor date. Evidently an English publication.

dies. And so if he refuses to employ, in constant and healthful action, the powers that belong to him as a being made after the likeness of the Infinite Intelligence, his superiority in this respect will cease to appear. It is possible for a man to make a brute of himself, to seek only for sensual enjoyment, and to have no interest in that which concerns his highest distinction and nobility as lord of creation. And many such there are, whose "god is their belly, who glory in their shame, and who mind earthly things." But in this state man is not himself; not what he was designed to be; not what it is his duty to be. Thus he becomes his own spoiler, and is at the best but a splendid ruin. His intellect, covered with a mass of sensual rubbish, resembles the unquarried block of marble, which lies concealed in its mountain bed, and has not yet been brought to view; or the diamond retained in its mineral bed, which has not yet received its polish, or put on its transparent hues. If the marble is susceptible of being chiseled into forms of life and beauty, the marvelous transformation has not been effected, and if the diamond possesses a high commercial value, it has not been brought into use or thrown into circulation. Both are as though they had not been. Thus, without intellectual improvement, man never fulfills the high purposes of his being; and, by his mental inactivity, loses a vast deal of that zest and enjoyment which, by the original design of the Creator, have been appropriated to the present life. And, while he disappoints the cherished expectations of the Deity, he does to himself a wrong which is permanent, and a mischief which is irreparable.

These things, then, being premised, it will appear as an imperative duty which man owes to himself, to improve and cultivate his mind. "Through desire, a man, having separated himself, seeketh and intermeddleth with all wisdom," is an appropriate motto, to be chosen in early life, and fit to influence our conduct, as far as circumstances render possible, in all the stages of our earthly existence.

Self-development and self-culture, like self-preservation, should be deemed among the first laws of life, and as taking precedence of most other obligations; as, indeed, they are essential to the most efficient and vigorous discharge of those obligations. And this is a duty which belongs alike to all. Not only the favored few, whose ample leisure, or professional character, favors, and in some degree necessitates, literary tastes and pursuits, but, likewise, those who are less favored by outward circumstances —the man of toil and care, the mechanic, the farmer, the tradesman, and all bearing the impress of a common humanity—should deem it both a duty and pleasure to realize the very highest degree of self-culture which circumstances may render possible.

This, of course, cannot be so great in some cases as in others. But, according to the current adage, "where there is a will, there is a way." If the disposition exists, time and opportunity will be found for the realization of hope and desire. This will be done by redeeming the time, by a corresponding employment of leisure hours, by various reading, diligent study, laborious investigation, and patient thought.

(To be continued.)

"I SHOULD think these omnibus wheels would be fatigued, after running all day," observed Sam. "Well, yes," replied Seth, taking a squint at them, "they do appear to be *tired*."

Pen Illustrations of the Drafts.

For the New York Coach-maker's Magazine.

AMERICANIZED ENGLISH COUPE.

Illustrated on Plate XXX.

THE original design, from which ours is Americanized, was furnished for the Magazine by Mr. W. Blunt, of the Messrs. Fred. Wood & Co.'s establishment, Bridgeport, Conn. Our artist, to whose judgment we submitted the drawing, communicates the following explanatory note:

BRIDGEPORT, CONN., December 28th, 1858.

MR. EDITOR:—The peculiarity of the design furnished by Mr. Blunt lays in the sweeps ending abruptly, leaving no round corners. The original is purely English. I have made some slight alterations, to Americanize it. The front boot must be concave about four inches on the side, to give the vehicle a narrow front for a city carriage. The front axle of this Coupé can be shortened to suit the wheel room. A large light in the back-quarter would be preferred by some, but close quarters are much more fashionable, and, besides, give the carriage, in our judgment, a richer appearance. J. IRVING.

For the New York Coach-maker's Magazine.

LIGHT ROCKAWAY.

Illustrated on Plate XXXI.

DANVILLE, KY., December 18th, 1858.

FRIEND STRATTON:—Enclosed you will find a drawing of a Rockaway, not very finely executed, as I have been out of practice for some time, but it may answer your purpose as something new, as I have never seen one like it, and presume it is original in several respects. I have been intending to send you something before this, but have been prevented from doing so. I will try to do something in future. I expect to be in New York soon, and will call on you. You can make any slight alterations in the drawing that you see fit; I think, as the wheel does not run entirely under the carriage part, it might be shortened in front. The back above the quarter-panel represents leather stitched.

Truly yours,
R. H. BROWN.

[We are under many obligations to our friend who sent us the above letter, and accompanying draft, and hope, as he intimates, to hear from him often. Very little need be added in explanation. The back-quarters may be worked from solid white-wood plank, and the skeleton door paneled at the bottom. The entire design represents a very light, neat and tasty article, well adapted for seating four passengers, to be drawn by a single horse.—ED.]

DOG-CART.

Illustrated on Plate XXXII.

It is quite common to denominate everything used for hunting, "a dog-cart," whether on two or four wheels. It will not be our province to dispute the propriety of calling a four-wheeled vehicle *a cart*, in this place, but we

think we risk nothing when we apply the term to our two-wheeled vehicle, furnished us by our artist, Mr. J. W. Britton. This article is calculated for two or four sportsmen, which, as the reader will perceive, is arranged to slide backwards or forwards, so as to maintain a proper bearing on the horse's back, should either two or four travel therein. The trimmings should be leather, and the chains which support the tail-board—let down for the entrance of dogs, and at the same time making a foot-board for the two hind passengers—should be covered with the same material. As the demand for "dog carts" is increasing every year in this country, we think we are doing our patrons good service in presenting this draft at this time. We intend, in an early number, to give something of this kind of European origin.

Sparks from the Anvil.

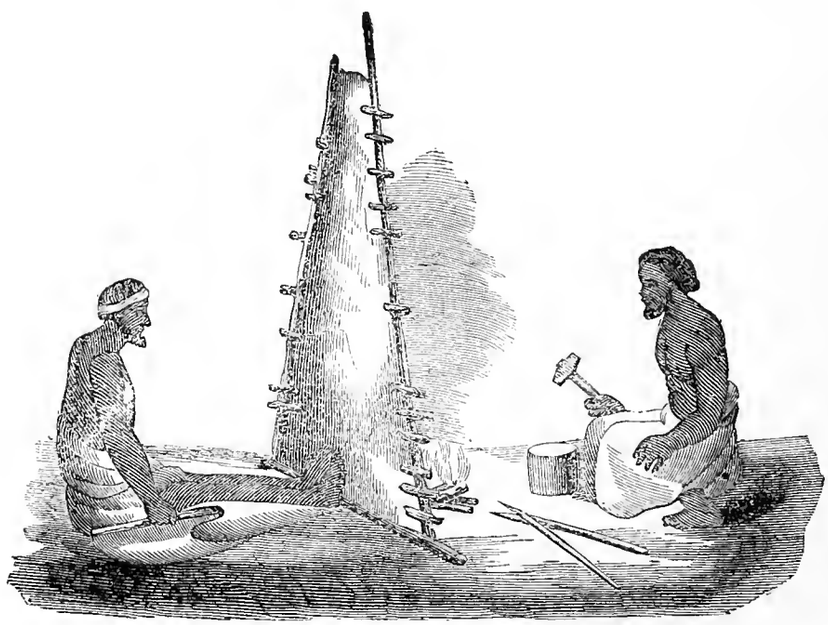
TEMPERING STEEL.

ON page 150 will be found directions for case-hardening iron. An article on tempering steel will be found equally valuable to our readers. There are very few coach-smiths who, in reality, know how to put the right kind of temper in a chisel, or a punch, so as to stand without failing. They are generally either too soft, or else too hard, to prove useful. This arises, in a great measure, from lack of judgment on the part of the workman, and from his ignorance as to the quality of his metal. Different qualities of steel require different degrees of heat, and the degree of hardness finally obtained depends altogether upon the temperature to which it is exposed—both as to the heat imparted and to the coldness to which it is subjected. It is only from experience these beneficial results can be learned. By drawing the end of a bar of steel to a taper, and practicing the *tempering* process thereon, the qualities of a certain bar may be ascertained, with a degree of certainty which renders it profitable to get, when purchasing, a bar of sufficient length to last two or three years for cold-chisels, punches, &c. After the "temper" is imparted, by breaking the ends off alternately from the pointed punch, the fineness of the steel may be known, the finer-grained being the most desirable.

For hardening a cold-chisel, for instance, different cooling mediums produce quite different results in the same steel. Pure cold water, cold soap-suds, whale-oils, and other liquids, have all been tried with varied success: but probably the pure cold water will be, on trial, found the best. It is only the practiced mechanic who can detect the peculiar color which indicates the hardness desired. A positive and certain degree of hardness may be seen in the different shades the cooling metal assumes, such as yellow, or, more properly, what is known as "straw-color," violet, blue, slate, or black; each successive color it assumes telling a man of experience that his tool is getting more and more soft, and when to suddenly cool off his job.

AN ORIENTAL BLACKSMITH.

WE have thought it might gratify our readers to see under what disadvantages blacksmithing is carried on in India. Although the natives of Ceylon work with considerable taste and skill, when the rude apparatus and tools with which the work is performed are taken into the account, we find much to excite our admiration. The best workmen require but a low earthen pot full of chaff or sawdust, in which is kindled a little charcoal fire; a small bamboo blow-pipe, with which the fire is excited, and a short earthen tube or nozzle, the end of which is placed at the bottom of the forge, and through which the wind is carried to the fire; a pair of tongs, an anvil, two or three small hammers, a file, and a few small bars of iron about two inches long, and differently pointed for different kinds of work.



CEYLON BLACKSMITHS AT THEIR WORK.

In our engraving are represented two of these rude artisans at the forge. The bellows are two bag-like formations from bullocks' hides, each furnished with a bamboo nozzle and a long slit, as a mouth with lips, of wood, which are opened, drawn up, and shut, and pressed down, alternately, by the hands of the person sitting between the pair, who maintains a uniform blast by the alternate action of the two bags. The nozzle of the bellows is introduced through a small hole at the base of the screen at the back of the

forge, and serves to allow the ascent of the smoke. This screen, as seen in the cut, is composed of a mat or kind of hurdle, stretched between two upright stakes, and plastered over with clay to protect it from the heat, and which, at the same time, screens the assistant from the effects of the fire. Although, at first sight, we might term this proceeding the pursuit of blacksmithing under great disadvantages, travelers assure us that these sable mechanics produce articles which may well challenge our admiration.

Paint Room.

For the New York Coach-maker's Magazine.

HOW TO PAINT A CARRIAGE-BODY.

BY GEO. P. TINKER.

SUGAR BRANCH, IND., December 26th, 1858.

FRIEND STRATTON—Dear Sir: According to a previous promise, I now give you my mode of painting a carriage-body, which I shall endeavor to do in as short a space as possible. In the first place, we will suppose the body is finished by the wood-workman, as it should be, in order to insure a good job, and save the painter half the labor that he has to perform on a half-finished body. It is thought, by some body-makers, that if they can get a body of the right shape, and get it screwed together tight, that is all that is required of them, and then they will say the way you painters putty and fill up a body, it is not much difference if the joints don't fit very well. But this is not the right kind of theory, for a body, with panel stuff half planed and jointed, that you could stick your putty-knife in, handle and all, is one grand reason why paint cracks, and peels off, as it has to be filled up so much, in order to get the surface level. A body should be made out of well-seasoned timber, and should be put together as if it was simply to be varnished and not painted at all; then a job would finish with half the work for the painter, and would stand much better than if it had so much putty and rough filling upon it.

Having given the body-maker a slight touch, we hope, for the benefit of our fellow-chips, that proprietors will take notice of the above, and see that the body-makers do their duty, and then, I think, there will be less grumbling at the painter. Well, enough of this.

The next step is, to prime the body; and the priming should be mixed as follows: take some white lead from the keg, and add enough lamp-black to slightly color it, and thin it down very thin with raw linseed oil. When the body has had a coat of the above, it should stand three or four days, after which it should be sand-papered off smooth, and one more coat of lead-paint applied, which is mixed in the following manner: take keg-lead and lamp-black in proportion as you may desire the shade, then add one part raw oil, two parts japan, and four parts turpentine; with this you will give the body about three coats, sand-papering each coat, and allowing each coat forty-eight hours to dry in, between coats. Before the last coat of lead-paint is applied, the body should be puttied. The putty should be made of three parts dry white-lead, and one part red lead, mixed with three parts japan, and one part varnish, with a small portion of raw oil. When a body is thoroughly puttied up, it should stand at least three days before any more paint is applied; but, when the body has stood thus long, you may again apply another coat of lead-paint; when this has become hard, you will apply one coat of the filling, mixed in the following manner: take one quart of yellow ochre, one pound of dry white lead, and four ounces of wet lead, and two ounces of red lead, and add enough japan to merely moisten it; then add two-thirds of a tea-cupful of varnish, and about one-third of a tea-cupful of raw oil; afterwards, add enough turpentine to run it through the mill, then add enough more to reduce it to about the thickness of heavy cream, when it is ready to be applied.

When this filling is being applied, it should always be laid on with a large brush, so as to lay it on very heavy. The body should have two or three coats, suited to the kind of job it is, and the manner in which you design finishing it. If it is a light common job, two coats are enough; but if it is a heavy job, then it should have at least four coats of filling, which should be applied every other day, and when the last coat is applied the body should stand at least two weeks, by which time it has become hard enough to cut down with block pumice-stone and water. The filling should be rubbed very low, in order to insure a job that will stand. I find, in a great many shops, that as soon as their bodies are done they proceed to have them filled up and set aside until they are ironed. Let the time be long or short, this we approve of, and would recommend the plan as being one worthy the attention of all practical carriage painters, from the fact that, on all bodies thus filled up and set aside, the paint and putty have time to get well seasoned. Some painters think that if they could just go to certain shops that turn out well-painted jobs (jobs, too, that stand the weather), and get receipts for mixing the paint, the way they mix it, then they could do jobs that would stand. But this is nonsense, for if they would take time enough, and pains when they are doing a job, they would find themselves turning out good jobs. After the filling has been cut down smooth and level, and washed clean, the body should be set aside until it becomes dry; then, if the body should require any more putty, it should be applied. This is not called for on many jobs. If you have to putty the screw holes in the side of a body, it is almost impossible to fill them at the first puttying, so as to cut off level. Hence, the best way is, to fill them as full as possible, previous to applying the paint, filling them after the filling has been cut down and dried; all the low places and joints that are made to open from the effects of filling and cutting down, which have a tendency to show when the job is finished, should be puttied up, and the body left to stand forty-eight hours longer, when the putty should be cut down in the same manner as the paint filling, and the body left to stand until it is dry. I suppose that I have written enough for the present, and will leave the balance of the subject for another number of the Magazine.

For the New York Coach-maker's Magazine.

ENCOURAGEMENT FOR COACH-PAINTERS.

BY JAMES SCOTT.

HERRING, the celebrated English artist, who, as a painter of animals, stands second to none, was originally a coach-painter. Does not this fact inculcate a valuable lesson; is it not eminently worthy of serious consideration;

and are the indomitable energy and perseverance which he put forth, to attain such a proud triumph, not worthy of imitation? The assertion, that "nature makes the artist," is incomplete; nature only supplies the material—it is *labor* that rears the god-like superstructure. As certain as the bright sun shines on this fair earth, there are embryo Herrings, and Raphaels, and Michael Angelos, whose highest ambition is to varnish a body or stripe a carriage-part. Perhaps, no trade is better calculated, than ours, to nourish and bring forth in the young mind the latent germs of art. It is, or might be, what printing is to literature—a nursery—a primary school; and yet, how few, how very few, see it in that light. I think that I remarked, in a previous notice on this subject, that every painter, who possessed sufficient genius to paint an ornament on a panel, had within him those inherent qualifications which, when cultivated, make the artist—the painter *par excellence*. Upon no better basis the old masters built a fame as lasting as history itself; and, even in our own day, men amass fortunes and attain exalted positions in society by their skill with the magic pencil. It is true that Shakespeare says:

"In framing artists, fate hath thus decreed—
To make some good, but others to exceed."

Granted; but how do you know that you are not among those destined to "exceed?" It is, at least, worth the trial, and the knowledge acquired in the effort will be of incalculable value to you.

THE DUTCHMAN AND HIS "CUB."

My friend, Knox, tells the following rich incident:

An unsophisticated specimen of Young America, from the rural districts, who was learning the trade under him, was ordered to varnish an old body. Knox was anxious to have it look as respectable as possible, and therefore gave the "cub" particular instructions as to the manner of putting on and "laying off" the varnish, charging him also to use much caution with regard to the quantity used, as too much would be sure to "run." Thinking it was all right, he left him, and went into another apartment of the shop.

The boy was just commencing the last panel of the job (a barouche), when the proprietor of the shop, a Dutchman, came in, and, examining the back and side that were finished, said angrily:

"Dat ish not ton goot, Jake. You must make him on heavy more as dat ish. Dis look shust like you grease him mit a rak unt sphrinkle mit sandt. Put him on hevy *soo* (making a motion like a man sowing wheat), and den de shob looks goot, yaw, besser as goot."

The Teutonic "boss" departed, leaving the youngster rather perplexed. He scratched his head, looked at the body, took a bite off his plug of tobacco, was struck with a brilliant idea, and, moving his varnish around to where he *first commenced*, he dipped up about a pint on the brush and slapped it on the panel. The first coat was nearly set, but, nothing daunted, "he pitched in." The varnish pulled *and he pulled*, and, between the two, they made the hardest looking job out of the old barouche that ever mortal eyes beheld. Run was piled on run in masterly confusion and snake-like proportions. The color of the job had given place to a dirty green, and *icicles* of varnish hung from the lower moulding. Knox came in and turned pale at the dreadful sight. The Dutchman came in and yelled in agonizing accents,

"What ish de matter! what for is dis!"

As for Jake, he went *out*, and when last seen was engaged in the fragrant but very useful occupation of driving hogs!

ORIGINAL ORNAMENTAL DESIGNS.

Illustrated on Plate XXXIII.

No. 1. The birds in this design should be painted, as closely as possible, to imitate the natural colors of the dove. The scroll-border laid with gold leaf, and shaded with asphaltum and raw sienna.

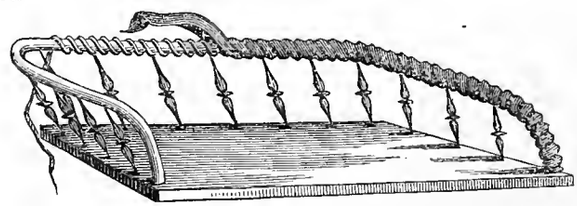
No. 2. The cherub's head should be done to imitate the coloring of the human face, with flesh color—mixed from vermilion, yellow-ochre and white lead—the wings being done in a light and silvery shade. The border should be gold leaf, shaded with asphaltum and raw sienna, as above.

No. 3. The lion's head, to closely imitate nature, of some dark brown cast. The border in the outlines and scroll-work should be gold leaf; the engraver's tinting shaded with red and blue.

Trimming Room.

NEW ROLL TO BUGGY SEATS.

THE roll to stick-buggy seats, as every one knows, has heretofore been put on as narrow as possible, to make the finish look very light, yet, after all, it still presented to the eye a clumsy appearance. To prevent this and at the same time lessen the expense somewhat, the rails are now bent all in one piece, and carved to imitate a roll and nicely painted, which for very light jobs is a decided improvement.



Another mode of trimming a rail is the one figured above. It is done by first having the seat rail rounded and smoothed by the wood-workman, before it is put on the seat. When it reaches the trimmer's shop, where it is placed unpainted, the trimmer winds a cord, about one-fourth of an inch large, around the rail, say, so as to have about three-fourths of an inch space between the cord, all around the seat. This done, he next takes a strip of patent leather, a trifle wider than is necessary to go around the rail (as there must be a little allowance for shrinkage), and having supplied the flesh side of the leather with paste, draws it moistened around the rail, and "whips" it on the under side, far enough on the inside to avoid the seam being seen when the seat is hung up. The next operation, after "whipping," is to wind a cord around the leather in such a manner as to have *this* cord bind

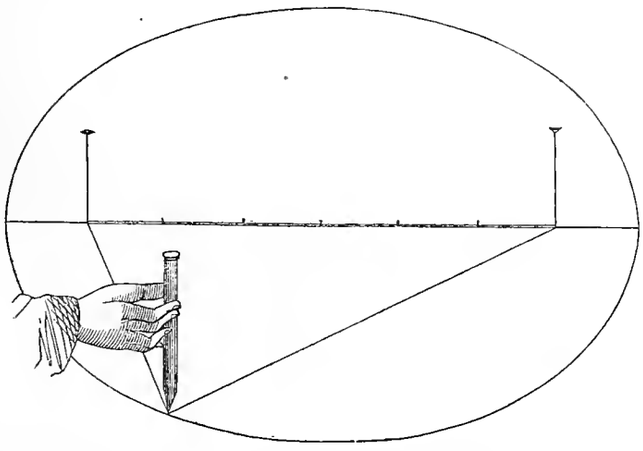
the leather to the rail close to the cord put on at first, at both edges, where it should be permitted to remain until the pasted leather gets perfectly dry. Afterwards, this last cord is to be taken off, when the rail will present the appearance we have endeavored to show in our illustration. This makes a light, neat, and cheap finish, preferable, on many accounts, to either the old or the painted mode, alluded to above.

For the New York Coach-maker's Magazine.

A SIMPLE WAY OF STRIKING A PERFECT OVAL.

Fredonia, N. Y., January 5th, 1859.

Mr. E. M. Stratton—Sir : It always inspires me with feelings bright and cheering, when any improvements in the arts and sciences are presented to my mind for consideration; but I must say that I was much surprised to see the old fogyism exhibited by your fellow-craftsman and coadjutor, "J.I.," in your last number of the Coach-maker's Magazine, in the oblong plate, illustrating the mode of obtaining a perfect oval. Dear Sir, Young America in Western New York is altogether ahead of Old Fogyism in Gotham. Why, Sir, the boys who play in the street, who are large enough to play marbles, can strike a perfect oval every time without fail, any desired shape wished, with only two pins and a string, without either square or compass, as illustrated in this foolscap.



To illustrate and strike what you call a well-formed and perfect oval—first, divide the given length into eight equal parts, then set two pins, one at each space from both ends of the desired oval; draw a string from around the one pin, extending beyond the other pin the extreme end of said oval, tying it into a hard knot; then place the point of a pencil against the inside of the string, always pressing against the string, to keep it tight, and then start the pencil in motion, as you see in the plate. Then the string will guide the pencil, and a perfect oval is the result. To elongate the oval, divide the length of the oval into a greater number of spaces, thus you can strike any desired shaped oval you may wish. Your fellow-craftsman,

J. Hinman.

[The above comes to us from an unknown friend, and, although his mode is no novelty, but has been practiced for years, it is none the less acceptable on that account. We are, however, rather amused, and think *our* "coadjutor" will share in our pleasure, when he comes to see how captiously Brother Hinman treats *his* perfect oval. Why, he will not allow us sciences above "the boys who shoot marbles" in his neighborhood. Well, we are wiser now, and, when we remember that Galileo, Harvey and other "boys" in former times were looked upon as "old fogies," "we thank God, and take courage." Friend Hinman, give us your hand.—Ed.]

TO CONTRIBUTORS OF STITCHING PLATES, &c.

We are under many and lasting obligations, to friends who have contributed designs for stitching patterns. Some, we are apprehensive, feel themselves slighted because their favors do not appear. Now, we assure all such that they are not forgotten, and, when the time comes around, no really *good* design will be neglected. As we give only quarterly stitching plates, the favors of our friends have accumulated on our hands. We have a very fine design engraved, on hand, from our friend Mr. Ralph Smith, Jr., which will appear soon, besides other drawings from other correspondents, for the non-appearance of which we ask the exercise of a little patience, "a spell longer."

Being so well supplied in stitching designs "just now," the trimming fraternity might confer a great favor on our readers and us, by trying their talents at something else of a useful character in their line, and which, if of value, we stand ready to pay for. So don't be backward, but let us have your assistance in giving usefulness and interest to our Trimming Room.

CARRIAGE-BOWS.

A correspondent, in the South, wants us to explain "what is the reason that, if I order a set of bows from New York, they will send us four bows—two of them inside, which have a difference of one inch and a quarter in their widths. The rule, when I was in New York, was to put the two wide bows in the centre, and the narrow ones back and front; but I find some buggies come from New York with all the bows of the same width. In Philadelphia it is the same way, and we wish to know which mode is the most mechanical, as it is necessary that the improvements should be made known, and that your Magazine should contain instructions where they are necessary."

Now, we do not like to commit ourself in this *abstruse* question. We judge that the chief reason, why our Southern friend gets two widths of bows in one set, is due to the laziness of the attendants where the bows are supplied, more than to anything else. We find the "Bowery boys" trying to come that game over us very frequently, just because it is a little more trouble for them to take four bows from the outside of a bundle, than it is to take four (two wide and two narrow) from the side. We always make

the bows of our tops the same width, but we have found advocates for having the back bow a little the narrowest. We certainly would not make the front narrow also. As to "reasoning" on the subject, we think it would only be "love's labor lost," and consider that individual taste has more to do in the matter than anything "mechanical." This, however, is a subject of legitimate inquiry, and is offered to our readers for discussion in our columns.

The New York Coach-maker's Magazine.

FEBRUARY 1, 1859.

E. M. STRATTON, Editor.

☞ In consequence of the abuse made of the practice we have been in, in sending out specimen copies of this Magazine, we shall hereafter expect *nine red postage stamps* to come with an order for a specimen copy, and, should a volume be afterwards ordered, a deduction of the amount forwarded will be made from the year's subscription. Some have even specified the particular number to be sent, and that, too, in such terms, that it was evident they knew just what we were publishing, and had no intention of subscribing themselves, but merely wished to get the number "free gratis for nothing." When we hint that every number sent as a specimen is supposed to break a volume, we think no *honest* friend will blame us for adopting the above rule in future.

AN EDITORIAL SUGGESTED BY A LETTER.

WHEELING, VA., December 31st, 1858.

Editor New York Coach-maker's Magazine:

SIR—Enclosed please find three designs for stitching, which, if you think good enough, you can insert in your Magazine. * * * * * I have seen some copies of your monthly here, and think it will take well, though the "Boys" fight rather shy of it just now, which is owing to the failure of the Columbus *sheet*, in which "concern" they were "sent up" for their subscriptions. I am trying to get up a club for *the* Magazine, and if I succeed you shall hear from me soon again; at present no more.

Respectfully, yours,
O. FERGUSON.

The foregoing is extracted from the letter of an unknown friend, for whose sympathy, in behalf of our enterprise, we are very thankful, and wish we had more such friends; but, since the sad defection of the party alluded to, we have received a number of letters breathing the same spirit—that, because A failed to discharge his obligations, B cannot be trusted. Judged by such a fallacious standard, there is not an honest man in the community who would not become falsely implicated with the roguery every day practiced. It is the rule of the courts, we believe, to take every man as being honest until he is convicted of crime. We wish our Southern brethren of the craft would look at our case with the same degree of charity. As far as the East is concerned, where we are known, and where our acts have been before the public for twenty-three years as a carriage manufacturer, passing through three "crises" without a stain on our character, as regards our responsibilities, we feel that what we are about to say would not be necessary. We do not receive such letters as the above from any person who is acquainted with us, and we are sure if our Southern and Western friends—those who are really desirous that a worthy enterprise should not languish for lack of their encouragement—would only send to some friend in New York, in whom they can confide, and make the proper inquiries, they will find us "all right." We court such inquiry, if those interested are not satisfied with the certificate of the respectable and well-known business men appended to our Prospectus and first number of this publication.

That there was no need of the "sending up for their subscriptions," alluded to, as far as the profits of the publication of the "concern" were concerned, may be gathered from the statistics furnished us from headquarters, on the 23d of Sep., 1857. Having announced to the public that he was determined, in future, to publish his "sheet" in New York, etc., the publisher wrote us: "Now that I am determined to move the Magazine East the first of January, and, *knowing*, as I do, your qualifications for conducting such a work, I would much prefer *you* for a *partner* to any one else I am acquainted with, for you have considerable experience. Therefore, I will make you an equal partner—give you the whole control and management of the same—have all correspondence relating to the Magazine directed to the New York office. You keep all books and accounts—employ or engage all contributors—in short, have the whole control of the *management*, as much as if it were your individual business." To induce us to abandon our individual enterprise, which he knew would interfere with his "concern," he gave us a synopsis of his profits—that, in 1855, the income for subscriptions and advertisements was $4,800.21; paid out in publishing, $2,139.02—in 1856, the income from subscriptions and advertisements was $6,418.00; paid out in publishing, $3,563.19—in 1857, to Sept. 23d (nine months), the income had increased, from subscriptions and advertisements, to $7,955.20; expended on the publication $4,653.80—presenting the following profits, on the "Columbus sheet," for two years and nine months:

Profits in 1855, ...	$2,661.19
" 1856, ...	2,944.81
" 1857 (nine months), . .	3,301.40

With the inducements presented, and the knowledge of our volunteer partner's "antecedents," we promptly declined taking passage in a ship in which, *with a leaky bottom*, we might endanger our welfare, our existence, and, as every freeborn American has a right to do, *launched our own craft* in June last. The first voyage has proved a "success." We need only a little more confidence from our Southern friends, to cheer us on nobly.

We have said thus much because we fear the public

labor under a false impression, that the publication of a coach-maker's magazine *cannot* pay. We say it will, and our experience demonstrates it. So the continuation of *your* Magazine into the second volume may be settled as a "fixed fact." We wish the public to note one thing—that it is our deliberate opinion *that, failing in every other "stratagem" to stop our popular rival publication, our enemy stopped short in his career, thinking thereby to weaken confidence in our enterprise by turning "traitor" to his credulous "friends."*

Tousley's "Supplement and Manifesto" ought to have prepared the public against being "sent up," and we are *now* well satisfied that the "complaining" ones have only themselves to blame in the premises. Forewarned, they should have been forearmed. The fact "that all hands" left the "editor and proprietor," in Oct., 1857, to steer his own ship, was itself significant that she had "missed stays" somewhere, and his lack of skill *in navigation* was a sure proof that the *homeward passage* would end disastrously.

Apologizing to our readers for having introduced this subject, which we have only done from a sense of necessity, and regretting very much the treatment to which *they* have been subjected through the "stratagems" of *their* 'old friend," we trust *the* friends of the new enterprise, who, we are certain, labor under needless fears, will visit our office at their earliest convenience, where we shall be happy to make their personal acquaintance, and answer any questions they may propose.

THE OMNIBUS AND ITS COMPETITOR.

A certain abstruse philosopher has said that there are but two things that have not changed since the great Architect said, "Let there be light, and there was light!" The one is the regular diurnal motion of our earth, the other, the unchanged position of the fixed stars. Without wasting time by discussing the propriety of these remarks, we think our readers will all agree with Bacon, that time is a great innovator, that "moveth so round, that a froward retention of custom is as turbulent a thing as an innovation; and they that reverence too much old times are but a scorn to the new. It were good, therefore, that men in their innovations would follow the example of time itself." We commend these philosophical reasonings to the consideration of all those "old fogies" who fear that the city rail-car will in time annihilate the city omnibus. But this is not exactly what we sat down to write in this article, yet it may serve in a measure to prepare the mind for what we originally intended to say.

It is now about twenty-five years since the omnibus was first introduced into New York city. In later years it had become so popular an "institution" of almost every city of note in this Union, that even some jealous coach-makers said their introduction was detrimental to the craft. What will such now say of their competitor, the rail-car, the introduction of which in our large cities threatens its predecessor, the "bus," with apparent annihilation.

That the rail-car has already been the means of diminishing the number of omnibuses in the city of New York, can be proved from the fact that, during the past year, but four hundred and eighty-nine licenses were taken out; instead of one thousand, as was done in the year 1853. This being the fact, it has very sensibly affected the omnibus manufacturing interests of this city—so much so that a friend, who makes it his chief business, says "it is scarcely worth following."

Let us see how the lessened demand for omnibuses must have affected the interests of that class of mechanics directly concerned in their manufacture. The present number of men, employed in building the new and repairing the old, is estimated at about 350, which number is now sufficient to perform all the labor required, where three years ago one thousand were needed. It is true that the workman may find some relief in turning his ingenuity in another channel—in the construction of the city railway car, etc.—but then it must be borne in mind that there is less wear and tear in the use of a car, and also that the mechanic, in his change, does so at the expense of all the associations, perhaps, of a lifetime, which is no small matter, as every person, accustomed to any particular class of work, too often finds.

That the men, who have invested their capital in omnibus proprietorship, are becoming dissatisfied is manifest in the disposition many of them show in their endeavors to get out of the business. Already, in the hope of improvement, the prices, long maintained at six cents, have come down to four. Whether this will prevent the ruin so much to be dreaded, remains to be seen. It was a hard struggle—the omnibus at six, and the car at five cents—but it required very little business talent to foresee where the victory must rest, and we are very much surprised that the proprietors of the several stage lines did not earlier open their eyes to their own interests, before they had become so profitless. But the "innovation" has *now* so far triumphed, that it would be "a turbulent thing" to dispute the fact, that popularity has already gone over to the rail-car. With a few more lines of railway, a greater number of cars, so as to avoid their now crowded state, and a little more conformity to the terms of their license with the city government, and their triumph would soon be completed.

TO THOSE DESIRING THIS WORK.

We would inform our friends that we can still supply the back numbers of the Magazine from the commencement of the volume, in June (nine numbers), which, as we do not intend to reprint, had better be sent for soon by those wishing perfect sets. The volume, when completed, with

a handsome title-page and table of contents, will form a book which will prove the more interesting the older it becomes, as showing the fashions of a by-gone time. Imagine to yourself with what pleasure you would peruse an old volume of a magazine like our own, had such been published thirty years ago, and realize how much interest ours will be to yourself or successor as many years hence. This work, not being stereotyped, cannot be supplied beyond a certain number of volumes.

☞ Some of our correspondents adopt the censurable practice of writing their articles intended for publication on both sides of the sheet. This should in no case be done. Always leave one side blank, in order to please the compositor. Another class not only follow the example of those above complained of, but write an article for the Magazine on one side of the paper, and on the other pen a long, private business letter, which, as we have no time for transcribing, not only lets the printer into the secret of our business matters, but subjects us to the risk of losing the correspondence, which it is a part of our ambition to file away for future reference. Friends, please remember, and write your articles for the Magazine on one sheet, and your letters on business on another, so that we may separate them without difficulty when they reach us, and file the business letter for future reference.

☞ OUR correspondent at Columbia, N. C., an extract from whose letter appeared in our Magazine for January, appears to differ in theory with the Editor of this Magazine, as to whether the heart or sap side of a spoke should be in front of a wheel.

He says: "I thought I would ascertain from some of the spoke-makers what they thought about it. I find they differ. Some say the heart side of a spoke should be back, because, if the sap is in front the wheel will dish too much, and every time the tire is set it springs the spokes still more, and, finally, the wheel is so much 'dished' that it is rendered useless. I am of the opinion that the sap side should be back, and the heart front, for the above reasons." Well, we "agree to disagree" on this subject, but it strikes us as being not the best mode of settling this *questio vexato*, to leave it to the decision of a "spoke-maker," whose sole interest consists in making all he can out of a log; and whose *experience* is confined to and comprised in the business of "getting out" and "getting off" his spokes.

FAMILIAR LETTERS FROM THE CRAFT.

SUGAR BRANCH. IND., Dec. 26th, 1858.

MR. EDITOR: * * * * We are laboring under hard times of the closest kind, yet times are somwhat looking up, and the spring bids fair to open with a plentiful harvest for the carriage-makers of the West. Still we meet many a desponding proprietor who says he will have to quit business, while again there are others who are on the look-up. A short time since, while on a visit to the capitol of our Hoosier State, I had the pleasure of visiting the carriage-factory of Mr. R. H. Gaston, and also of the Messrs. Drew & Son, at which place we found them getting up work that is not surpassed by any State in the Union. This is taking broad ground, but I say it without fear of successful contradiction, because I found, at the first-named place, a buggy called the round buggy, which I have never seen anywhere else, and never heard of but one before, and that was made in St. Louis, Mo. The body of this buggy is made in the shape of a very round oval. The dash round with the body forms an oval round with the body, of an oval shape over the top. I also found them making carriages from several of the drafts laid down in the New York Coach-maker's Magazine. R. H. G. should send you a draft of his round buggy; it would be well received and approved of by the craft.

Yours, respectfully,
GEORGE P. TINKER.

BRIDGEPORT, CONN., December 28th, 1858.

MR. EDITOR—Dear Sir: It is now some time since I wrote you respecting the state of trade in this direction. I presume it will be interesting to you and others, to hear of a general revival in the carriage trade. Mr. Wood's establishment is in full blast, and, from the appearance of things, I think my former predictions will be verified soon, in the establishment of the old prices, which I am sure our enterprising manufacturers here will be most happy to give, as soon as times will admit. I wish I could hope the same of some other manufacturers in the Eastern States.

Messrs. Osborn and Griffith have succeeded the Gould & Keiffer Co., and are beginning to do a snug business, and are deserving of that success which there is no doubt they will receive, as long as they continue to select the best of stock, combined with their good judgment in getting up a superior kind of work, second to none in the market.

J. IRVING.

MEDINA, OHIO, Jan. 4, 1859.

MR. E. M. STRATTON—Dear Sir: I am much pleased with the Magazine thus far, and, if you continue doing as well as you have done, you may count me in as a regular subscriber. It seems to me that every member of the craft ought to patronize you, thus enabling you to enlarge it, and add more miscellaneous matter. Why cannot mechanics have their own magazines, and good ones, too? All that is necessary is, for them to subscribe liberally.

There is no class of men that have more time to spend in reading, than the mechanic who works ten hours a day, if he would only improve it. Why are mechanics generally considered as belonging to a lower grade of society than merchants, lawyers and doctors, or professional men generally? It is because they do not improve their leisure moments in reading. We have some noble examples of men who commenced life as mechanics. Look at Elihu Burritt, who is said to be the greatest linguist in the world. Senator Douglas was a cabinetmaker. Senator Wilson was a shoemaker. Many others might be mentioned, who are noble examples for us to imitate. There is no reason —except carelessness and inattention—why mechanics as a class are not as well posted, in politics, history, and a

general knowledge of men and things in the world, as professional men generally, as they have more time to attend to general reading than the professional man.

Then, let us arouse ourselves, cultivate our intellectual faculties, and elevate ourselves, morally and socially. We should all read, think and write more than we have done. It makes no difference to us, so far as our own improvement is concerned, whether the Editor thinks our ideas worthy of a place in the Magazine or not—we can keep trying. We may at least benefit ourselves by so doing, and practice will fit us for writing, so as to amuse and instruct others. Carriage business, so far as my observation extends, on the Reserve, is dull business at present. Hardly any of the shops are doing more than half their usual amount of business; but we look for better times next season, and hope we shall not be disappointed. We have had very disagreeable weather, so far, this winter, but it is now snowing fast, with a prospect of sleighing. I hope it may come, for the benefit of those who have cutters to sell. You called for contributions from mechanics, and it is answered in the last number. I hope more such will be received. Let every man contribute his share of money, and whatever of brains he may possess, and the Editor can assort the latter and print such as he deems worthy, and throw the balance under the table. You are at liberty to do whatever your better judgment directs, in regard to this communication; and I shall not promise you it will be the last you'll have a chance to read from me, should this be thrown there, as I had a few moments' leisure time, and it will cost me but three cents to send it to you; and the effort will be worth more than that to me individually.

Respectfully, yours,
E. BRIGGS

[With a trifling omission, of a private nature, we give our correspondent's letter entire. We are so well pleased with the spirit of it, that we are half inclined to constitute him our "assistant," without asking his consent, *à la* our old Ohio "boss." There is only one thing standing in the way—that is, we do not feel quite so great a necessity for one as that "tall son of York" did. At any rate, we "engage" Bro. Briggs to write us often, and he need not fear getting "under the table." We don't put anybody there. If the articles of our friends are not printed, that is no reason why we should insult them. So, "let every man contribute his share of money and brains." Both are very acceptable, *the money* decidedly so.—ED.]

COLUMBIA, TENN., January 8th, 1859.

FRIEND STRATTON:—In the January number of the Magazine I noticed a communication from L. W. True, of Triune, Tenn., in which he states that Tennessee timber is inferior to that from the Eastern States, and not as good for carriage work, which statement is calculated (unintentionally, no doubt, on his part,) to produce a wrong impression upon the minds of your readers. Having worked eastern timber for carriage work for fifteen years, in the Eastern States, and having also worked Tennessee timber, in Tennessee, for the last ten years, and being acquainted with the section of country about Triune, I can well imagine how your correspondent came to make the statement he did in relation to the timber. He is surrounded by a section of country, the soil of which is very rich, and produces timber of rapid growth, and porous, which kind of timber is sometimes used in carriage work, but the word Tennessee includes the whole State, many parts of which produce as good timber as can be found in any State in the Union, which your correspondent will find to be the case, if he will visit the different counties and closely examine the quality of the timber. He is not the only person in Tennessee who entertains the same erroneous opinion in regard to Tennessee timber, and carriage-makers are too apt to use such timber as they can get most conveniently, and nearest their places of business, and conclude that, if a good quality is not in their immediate vicinity, it is not to be had in the State. But if all such will put themselves to some inconvenience and extra expense, in order to procure a good quality, there will be no further cause for complaint on account of poor timber. I allude, now, more particularly to hickory, as this is the kind now almost universally used for every part of a carriage that is to sustain the greatest amount of strain. Respectfully, yours,

J. D. SARVEN.

STANTONSBURG, N. C., Jan. 11th, 1859.

MR. E. M. STRATTON—Dear Sir: The last number of your Magazine contains, under the head of "Familiar Letters from the Craft," a communication from Raleigh, N. C., signed by Mr. B. H. Huestis. That communication, Mr. Editor, contains some of the vilest slanders against the South, and more especially against this State, that were ever perpetrated outside of the borders of Massachusetts in her palmiest days of abolitionism.

Now, sir, I happen to know something of this State, and, what is *more* unfortunate, I happen to know something of Mr. Huestis—I say unfortunately, because wherever that individual has, thus far in life, "pitched his tent," the atmosphere of society has at once become redolent with the combined fumes of *gas* and mischief-making. I think your readers will, by referring to his letter, find the charge of gas clearly made out by the beautiful and graphic account which Mr. H. gives of his race with the "nigger" on that carriage-part. I venture the assertion that that race—or the account thereof—will go down to posterity, linked indelibly with the glorious achievements of all the master-spirits of the world who have preceded Mr. B. H. Huestis.

"Can such things be,
And overcome us like a summer cloud,
Without our special wonder?"

Your correspondent speaks of a shop in which he worked last June, where all the blacksmiths were "niggers," and, to "pile up the agony" still stronger, he adds that, as soon as he left, they (the firm) "honored his bench by putting a black nigger to work upon it." I have only to say, in regard to this, that I think the word *honored* was very appropriately put in. I would draw near to your correspondent, and whisper in his ear the old and familiar adage, that

"Honor and shame from no condition rise,
Act well your part, there all the honor lies."

I know the gentlemen with whom he worked last June, and can truly say, that two more clever, upright men than they cannot be found. I was employed by them at that time, and know that they treated Mr. H. with the utmost kindness and respect, giving him work when they did not need his services, simply because he was badly in need of work—or, at least, so he himself stated. Now, I ask you,

sir, and, through you, your readers, if this attack on his former employers does not savor strongly of ingratitude.

His description of the style of work that is "got up" in N. C. is in full keeping with the preceding part of his communication, and is, therefore, unworthy of notice, except for the purpose of further "showing up" the individual who has attempted to enlighten you and your readers on the "goose question."

I admit that many of the so-called coach shops in this State are unworthy of the name; but there are also many others, which turn out light work that will compare favorably with that manufactured anywhere—work, sir, which even "we Northern men" (I mean the sensible portion, of course) would not call "plain." Mr. H. has also, "once upon a time," favored this little 'Burg with a specimen of his "we, Northern men" workmanship, and also with his ———, but I will not say what, unless he sees proper to "take up the cudgel" in reply to this article, in which event, I promise to fill up the above blank, in a manner that will not only "astonish the natives," but will also accomplish what many of his acquaintances consider impossible, and that is—to cause his cheek to blush with shame.

I fear, Mr. Editor, that you will consider my language rather rough, but I assure you that, under the circumstances, I could make it no milder. I have honestly endeavored to vindicate the good name of the coach-making fraternity of this, my adopted State, from the infamous and assassin-like thrust made upon them by your correspondent at Raleigh; and, as a subscriber to your publication—as an inhabitant of a State, a portion of whose inhabitants has been thus ruthlessly assailed—I ask you to give this an insertion in the next issue of your Magazine. I think you will join me in believing that this is due alike to your subscribers in N. C., and to the craft everywhere. "Let justice be done, though the heavens fall."

I would further add, that I have stated nothing but facts, which I can substantiate at any moment. With my best wishes for the continued success of the "New York Coach-maker's Magazine," I subscribe myself, yours, truly,

T. F. BAIN.

[Whether our correspondent at Raleigh is "sound on the goose question" or not, we do not feel qualified to decide. We think, however, that our friends South need feel no unnecessary alarm. If Mr. Huestis has misrepresented matters, it were far better to set him right with facts than to attack him with personal abuse. We think friend Bain *is* a "little too rough," so much so that we hesitated to give his letter entire, until we found others in N. C. felt that injustice had been done their State. Mr. Huestis will be "permitted to speak for himself," which, we trust, he will do in a proper spirit. If there is a "blank to be filled," let it be a blank cartridge; we are decidedly opposed to the "pistols and coffee for two" discussion. Personal abuse is neither argument nor reason.—ED.]

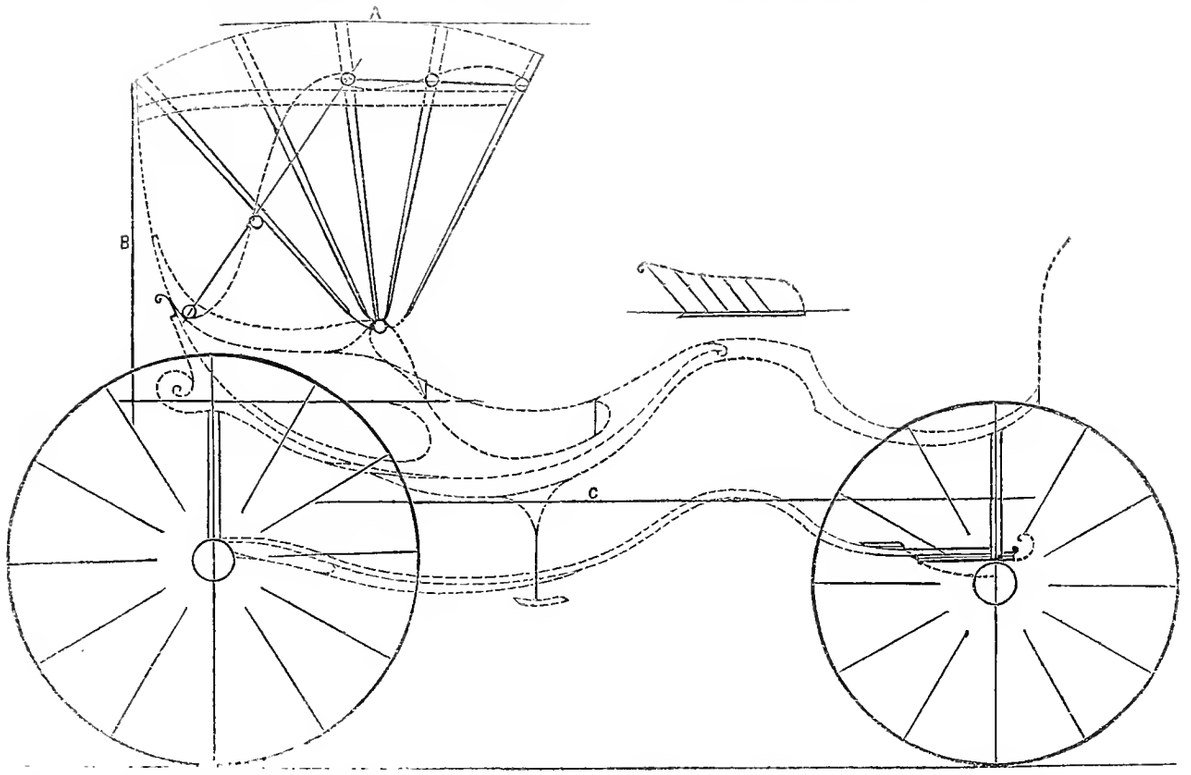
☞ M. F. S., of Mo.—We are very much pleased with your articles, and shall give them to the public as soon as we can have the proper illustrations engraved. Please send us your address in full, that we may know where to direct a letter for you.

LONDON OMNIBUS TRAFFIC.

THE conveyances of the London General Omnibus Company carried 16,800,000 passengers during the first half year of 1858. The total receipts in fares, for that period, amounted to £291,604, and the expenditure to £282,523, leaving a profit of £9,089. On comparing the receipts with the corresponding half of 1857, there appears to be a decrease of £16,807, while, on the other hand, the expenses show an increase of £5,615 over those of the first half of 1857. The traffic, however, has not diminished, for, in the first half of 1857, about 16,100,000 passengers were conveyed, and in the past half-year about 16,800,000 passengers, showing an increase of 700,000 passengers. In 1857 the omnibusses running daily averaged 560, the days of omnibusses 103,600, and the mileage run, 5,689,023 miles. In 1858 there was an average of 581 omnibusses running daily; 106,904 days of omnibusses, and a mileage run of 5,815,036 miles, showing an increase of 21 omnibusses, 3,304 days of omnibusses, and 126,013 miles. The business had increased, but the amount received had been less, because it had become requisite to reduce the fares, and the proportionate expenses had increased, because it was necessary to maintain their position against their opponents at any cost. During the past half year 74 new omnibusses have been put to work, and 321 others have had their roofs raised, and ventilating apparatus fitted in them. On the 30th of June, there were 198 entirely new, and 199 improved omnibusses at work, and 6,385 horses in use for them. The French "correspondence" system does not seem to have made much headway. This is, perhaps, a good deal owing to the confirmed habits of Londoners, and, in part, to the different arrangement of the streets, as compared with those of Paris.

☞ WE had designed to have given the portrait and biography of Mr. Wm. D. Rogers, of Philadelphia, in this number, but, finding that waiting longer for it would delay its publication too long, we were very reluctantly compelled to go to press without it. We shall, however, give it in our March number, where our readers will find a model biography of the deepest interest, or we shall be greatly mistaken. With no intention of boasting, we think our readers will admit that the present is decidedly the best number we have published, and which is altogether due to the kind attentions of our valued correspondents, whose noble response to our invitation to contribute is worthy of our warmest thanks. We trust, therefore, that they will not cease in well-doing, but continue to favor us with any novelty which may present itself. Rough sketches or descriptions will answer our purpose, as we have artists who will dress them up "about right" for the public eye.

☞ THE past month has been fruitful of many attentions from correspondents and subscribers, for which the Publisher is placed under many obligations.



For the New York Coach-maker's Magazine.

SCALE DRAFTING, AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, OF BRIDGEPORT, CONN.

Continued from page 159.

LESSON FIFTH.

In drawing a carriage of this description, commence, as in the last, by drawing the top line, A, and line B from your back, at right angles, then calculate from the top to the seat; from the seat to the bottom; from the seat-line mark 20 inches from the top of the back, and 3 inches from the back line B. From the bottom line c mark 2½ inches for the depth of the rocker immediately under the front of the seat. Then on the seat-line mark 12 inches from line B; from this point mark 22 inches to the door-joint. Having those points laid down, commence and sketch off the hind part of the body, and draw your back loop. From the loop calculate for the spring, beds, and axle, and strike the circle for the hind wheel; then draw the base-line. From this line mark the height you require the neck of the body for the front wheel to pass under, then continue sketching your body, and place the front seat in its proper position. From the seat to the dash mark off 24 inches. As I intend to devote one chapter in finding out the proper place for the front wheel, I will merely here state that for a 5-foot track draw a perpendicular line 26 inches from the centre of the arch, for the centre of the wheel, and then describe the circle for the front wheel, and lay off your reach. If you have studied the preceding articles on drafting, you will be able to make a sketch like the present one, by applying the scale to the draft to get all your sizes. This carriage completed will appear in the next number, in one of the plates, as it will make a neat engraving for that purpose.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME AND ABROAD.

AMERICAN PATENTED INVENTIONS.

Dec. 14.—Sled-brake.—Albertus Larrowe, of Cohocton, N. Y.: I claim the arrangement of lever, e, scrapers, e, and rods, f, operating, as described, for the purpose of a self-acting brake, and self-relieving and backing the sled as set forth.

Children's Carriages.—Gilbert Maynard, of Greenfield, Mass.: I do not claim broadly the employment of coil springs in connection with carriages, but I claim connecting the axle, C, with the tongue, N, by means of the peculiarly-formed rods, B, which also serve as springs for the vehicle, as shown and described.

Adjustable Carriage Seats.—Henry H. Potter, of Carthage, N. Y.: I do not confine myself to the precise arrangement shown, for various similar or equivalent plans might be devised for effecting the same result or adjustment of the seat, although, perhaps, the plan shown and described would be as simple and efficient as any.

I claim attaching the seat, B, to the body, A, of the vehicle, substantially as shown, or in any equivalent way, so as to admit of the seat being turned obliquely with the body, either to the right or left, for the purpose set forth.

Attaching Carriage Thills to Axles.—John W. Sibbet, of Cincinnati, Ohio: I claim the plate, C, and socket or tube, D, attached to the clip, B, in connection with the pin, G, attached to the thill, f, and the hook, H, provided with a shank, I, and nut, J, and ratchet, K, the shank of the hook being fitted in the tube, D, and the ratchet having a panel, I, catching into or engaged with it, the whole being arranged substantially as and for the purpose set forth.

Dec. 21.—Brush.—Reuben Shaler, of Madison, Conn.: I am aware that brushes have been made in which the bristles have been attached to a cylinder in tufts, spirally arranged in rows around it; I make no claim to such a form of arranging the bristles.

I am also aware that bristles have been secured in position, after they have been attached to the handle, by pouring melted resin upon their ends, or by filling the end of the brush with glue. I do not claim these modes of cementing in the bristles.

I claim, as a new article of manufacture, a brush, the bristles of which are secured by winding them into a spiral groove, and fastening them in the manner described, or by winding them into cement, as set forth.

Dec. 28.—TRACE FASTENINGS.—Nil J. Reynolds, of Webster, N. Y.: I do not claim the face plate, A, or bolt and spiral spring, E, as new.

But, I claim, first, the formation of the eye, d, which receives the tongue, E, for the purpose described and set forth.

Second, I claim the tongue, E, in combination with the tube, c, spiral spring and bolt, E, which fastens tongue, E, in the eye, d, as described.

January 4.—MEANS OF OPERATING CARRIAGE BRAKES.—William Gourley and Isaac Krebs, of Winchester, Va.: We claim the construction and application of the compound or double lever, d d, e e, as described, and the crank-shaped rubber-rod or brake-bar, g h i, and T-shaped spring, L, when combined and operated, substantially as set forth and described.

MEANS OF OPERATING CARRIAGE BRAKES.—Isaac Krebs, of Winchester, Va.: Having described the nature, construction and operation of my improvement, and being fully aware that rubber blocks and brakes have been applied to the hubs of wheels, and operated also by draw-rods and levers, therefore, such devices, in themselves, I do not claim.

But I claim the levers, h i j, with movable fulcrum, g g, the sliding adjusting connection-rod and tap, n n P, the slotted clip or fulcrum support, d e f, and the spring rubber, r s, when constructed and arranged in combination, as before set forth and described.

SPOKE MACHINE.—N. Olney and C. H. Kellogg, of Amherst, Mass.: We are aware that expanding cutter-heads have been previously used, and we, therefore, do not claim, broadly, such device.

But we claim the expanding cutter-heads, D, in connection with the guides or patterns, G G I, attached to the reciprocating carriage, F, in which the stick, A, to be operated upon, is placed; the guides or patterns, G G I, actuating the cutter-heads respectively, by means of the mechanism, substantially as shown and described, for the purpose set forth.

We further claim, in combination with the expanding cutter-heads, D, and the guides or patterns, G G I, on the carriage, F, the circular saws, Y Y, fitted in the frame, V, operated automatically by the carriage, F, substantially as set forth.

MACHINE FOR MAKING HAMES.—Henry Burt and James Y. Hedden, of Newark, N. J., patented February 17, 1857: I claim the forging of metal into useful forms by the employment of two or more pairs of rolls, having their surfaces cut away, and combined, and rotating and pressing the metal progressively into shape, being conducted from one pair of rolls to another through the agency of the guide.

RECENT EUROPEAN PATENTED INVENTIONS.

August 5.—Jozé Luis, 1 Welbeck street, Cavendish square: A machine for drilling and grooving the naves of wheels, and also to force the axle-box into the naves.

Alfred V. Newton, 66 Chancery Lane: Improvements in the manufacture of lace.

August 19.—Alexander Pilbeam, 2 Lonsdale Place, Notting Hill: A bradawl screw.

October 14.—Easterbrook & Allcard, Albert Works, Sheffield; "Improved bench vice."

☞ In the Senate of the United States, on the 17th ultimo, Senator Dixon, of Conn., submitted the following resolution, which was duly considered, and by unanimous consent agreed to: "*Resolved*—That the Committee of Patents and the Patent Office be instructed to inquire what legislation is necessary to enable the Commissioner of Patents to compel the attendance and examination of witnesses, and the production of books, contracts and vouchers, and a full disclosure by patentees of all facts upon which any claim for the extension or re-issue of a patent may be claimed, and that said Committee report by bill or otherwise."

The Humorists' Column.

"A little nonsense, now and then,
Is relished by the best of men."

"Now, Allie, dear, let me impress one thing upon your mind; don't be rude with the other little girls at the party." "And mother," replied the quick-witted pet, "let me impress one thing upon your mind; don't come away till the party's out."

MISS DUBOIS says that, the first time a coat-sleeve encircled her waist, she felt as if she was in a pavilion built of rainbows, the window-sills of which were composed of Eolian harps. A grand sensation, that.

JENKINS youngest daughter adopted the fashion of expansive skirts, at a dangerous season. A violent cold was the consequence. "My dear," said Mrs. J., "aren't you afraid Jane Anne has got the consumption?" "No, my dear," said Jenkins, "it's nothing but the *hooping cough*."

A MODEL young lady, just graduated from a certain distant academy, remarked the other day: "I cannot deceive how the young gentlemen can drink to such a recess, when they know it is so conjurious to their institutions."

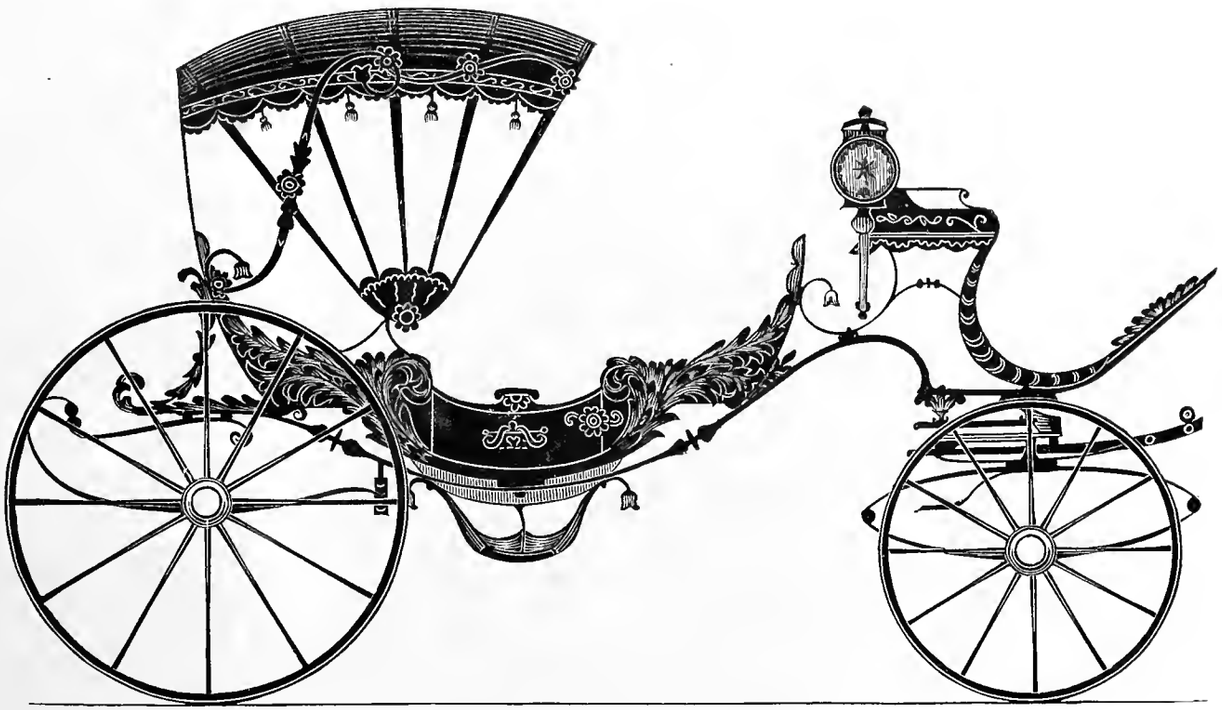
"You have lost your baby, I hear," said one gentleman to another. "Yes, poor little thing! It was only five months old. We did all we could for it. We had four doctors, blistered its head and feet, put mustard poultices all over it, gave nine calomel powders, leeched its temples, had it bled, and gave it all kinds of medicines; and yet, after a week's illness, it died."

A FEW evenings since, Jones resolved to "screw his courage to the sticking point, and make his destiny secure." Accordingly, he fell on his knees before the fair "Dulcinea," and made his passion known. Much to his surprise, she refused him out flat. Jumping to his feet, he informed her, in no choice terms, that "there were as good fish in the sea as ever were caught." Judge of the exasperation of our worthy swain, when she coolly replied: "Yes, but *they don't bite at toads*." Jones has learned a lesson.

A GREEN YANKEE.—The editor of the *Knickerbocker* says: "I should like you to have seen a specimen of a green Yankee who came down the Sound in a Hartford steamer with me.

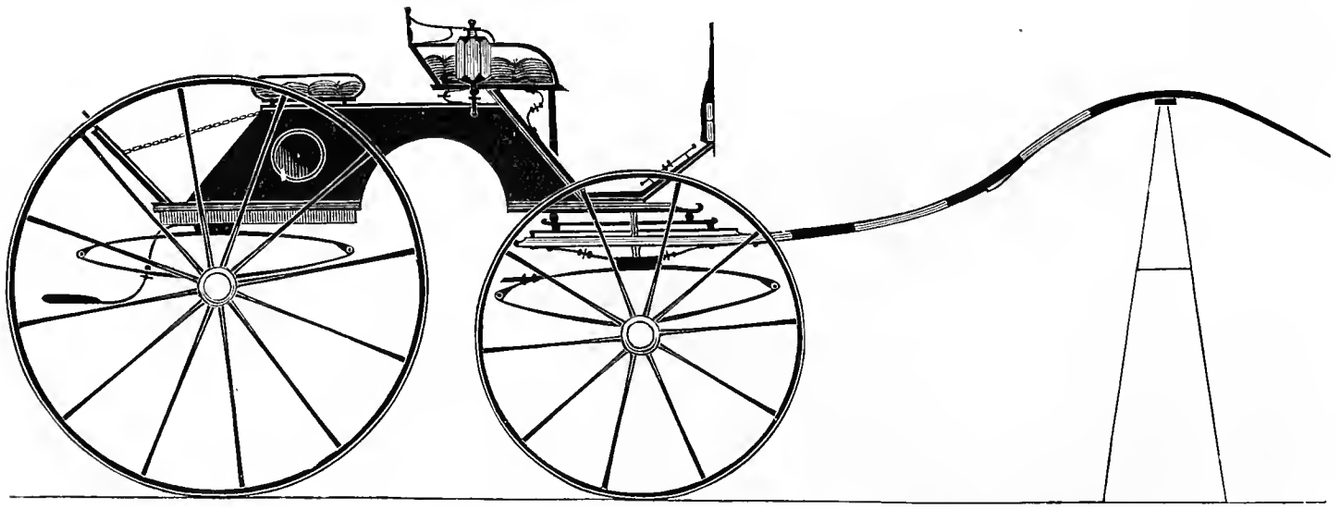
"He had never been to York before, and he was asking questions of everybody on board the boat. However, if he was 'green as grass,' he was picking up a good deal of information, which will doubtless stand him in good stead hereafter. One of his comparisons struck me as being decidedly original:

"'Up to Northampton,' said he, 'I took breakfast, and they taxed me tew shillin's! 'Twas a pooty good price, but I gin it to 'em. 'Twas enough, any way. Well, when I came down to Hartford, I took breakfast agin, next morning, and when I asked how much, they looked at me and said, half a dollar. I looked back at 'em pooty sharp, but I paid it. I sot down, and ciphered up inside how much it would cost a fellow to board long at that rate; and I tell you what, I pooty soon found cout that 'fore the end of a month it would make a fellow's pocket-book look as if an elephant had *stomped onto it!*' Sam Slick himself never employed a more striking simile."



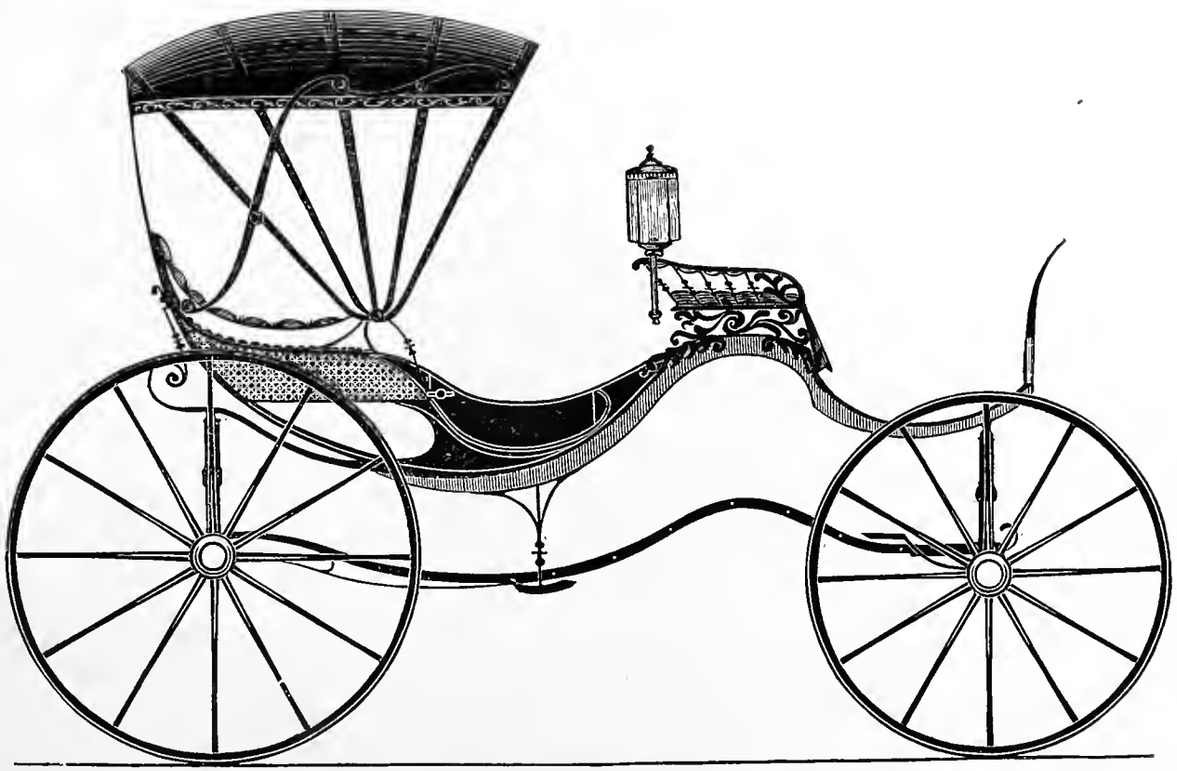
THE FLORAL PHÆTON.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 189



THE HUNTING BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 189



SUMMER PHÆTON.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 189.

Yours truly
Wm. D. Rogers

Engraved expressly for the New York Coach-Maker's Magazine.

March, 1859.

THE NEW YORK COACH-MAKER'S MAGAZINE

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, MARCH, 1859. No. 10.

The Coach-Maker's Portrait Gallery.

For the New York Coach-maker's Magazine.

BIOGRAPHY OF WM. D. ROGERS, ESQ.

(WITH PORTRAIT.)

Of the multiform subjects which engage the minds of thinkers at the present day, that of "success and failure in life," in its various phases, holds a conspicuous place, and, in view of this fact, and the truism, that the most impressive lessons of philosophy are taught us by living examples, the history of living men—whose web of success has been woven within memory, and, we may say, under the eye of the present generation—becomes not only a matter of intelligent interest, but of substantial importance, to all, and, more especially, to young men who are about to engage in pursuits for a living. Hence it is that these *biographic* sketches, presenting, in brief outline, the business career of their respective subjects, possess a peculiar value in the experimental landmarks they afford to younger mariners on the sea of active life.

The subject of this sketch—William D. Rogers, Esq., of Philadelphia—whose portrait appears in the present number, was born in the city of Baltimore, in 1819, and is consequently, at this writing, about forty years of age. When quite young, his parents removed to the city of New York, and subsequently to Philadelphia, where their son William, after leaving school, was apprenticed to learn the business of coach-trimming. It is in the self-sacrificing energies of this period in the life of the boy that was sired the spirit of successful enterprise in the future man. The trials to which he was exposed, during the greater part of the six years of his apprenticeship, were such as only those who have been similarly situated can appreciate; yet, in the face of every obstacle, young Rogers persevered with a heroism that cared for nothing but the acquirement of a perfect knowledge of everything pertaining to his future business. Nor was this fidelity entirely lost upon his employer. Two years before the expiration of his term, he had so thoroughly mastered his profession, and evinced so much fidelity and vigilance in the absence of his employer, that the entire charge of the shop was given to him.

At the expiration of the time for which he was bound, having scrupulously discharged his obligations, to the letter, he determined to avail himself of whatever knowledge could be gained as a traveling journeyman; and, having learned that the coach-makers of New England were acknowledged to be the most skillful practitioners of the craft in this country, he at once set out for Boston, where he arrived early in 1841, carrying with him letters of introduction to the most celebrated coach-makers of that city. As the reader will remember, this was at a period when, under the depressing operations of the tariff, which was supplanted in 1842, the business of our country, and especially of our factories, was so prostrated as to make non-employment of operatives the rule, and employment the exception. After having made a manly effort to obtain a job in Boston, without success, Mr. Rogers, who had now attained his majority, at length procured employment for a short time in a shop at Roxbury, for which, however, as Mr. R. has been frequently heard to acknowledge with warm expressions of gratitude, he was mainly indebted to the good offices of Mr. Dennis, who was at that time the partner of Mr. Goddard, now one of the leading carriage-builders of Boston. In addition to this act of disinterested kindness, Mr. Dennis took great pains to describe to his young applicant the manners of the people of New England, their mode of dealing, &c.; he also gave him a memorandum of the shops in that part of the State, all of which was of signal service to Mr. Rogers in his future tour through the Eastern States.

As has often been realized in the life of a worthy artisan, the first job led to numerous others. He had no sooner completed his Roxbury engagement than a door was open for him at Lynn, and subsequently at Amesbury and Newbury. He next went to Exeter, New Hampshire, where, as the writer has frequently heard Mr. Rogers relate, he passed among the snow-drifts one of the happiest, most eventful, and instructive winters of his life, working at his trade in a snug little shop, at the rate of seventeen dollars per month and his board. In the spring he left Exeter, but returned again the following year—the auspicious change wrought by the new tariff during this short interval being signally attested in the fact that, instead of returning to work at the rate of seventeen dollars per month, his new engagement in the same town, after the lapse of a single year,

was at the more than quadrupled compensation of *eighteen dollars per week!* To follow Mr. Rogers from this point through all his adventures in the different parts of New England, and, subsequently, through the Southwest, would swell this sketch into a volume. We cannot refrain, however, from briefly referring to a few characteristic incidents, as affording an expressive index of the self-reliance under difficulties which has uniformly marked the course of our subject through life.

A few hours after his arrival at the town of Springfield, on the Connecticut river, Mr. Rogers was the hero of the following adventure: On the opposite side of the street from where he was standing, a stage-coach, containing a single passenger—a young lady—was halting in front of a hotel. The driver having left his box, the horses took fright at some passing object, and started on a furious run. The gallantry of young Rogers, however, was not to be outdone by the speed of the Connecticut span, and accordingly, while the villagers stood aghast with alarm at the probable fate of the fair tenant of the coach, he managed to head the horses against a towering elm, and so rescued the young lady from the perils of a stage-coach runaway; though it is questionable if ever a hub of Mr. Rogers' world-renowned carriage-wheels was more completely surrounded with *fellows* than was this young lady on her safe landing upon *terra firma*. It may be stated here, that it is a question, which, from the writer's conversations with Mr. R. upon the subject, he has never been able fully to determine, whether his standing opposite the stage-coach was prompted by a commendable admiration for its fair occupant, or a characteristic curiosity to inspect any and every object endowed with wheel locomotion. With the evidence before us, the latter opinion seems most probable, as a more acute and indefatigable observer of all sorts of wheeled vehicles, than Mr. Rogers, we have yet to hear tell of. But the sequel to this adventure is yet untold. Among the throng assembled around the arrested coach was an old gentleman, who, from admiration of this brave act, engaged young Rogers in conversation, when the fact was elicited that the former had a number of carriage bodies to trim, and intended to bring them to Springfield for that purpose. Rogers promptly applied for the job. "But," said the old gentleman, "where do you propose to do them?" "Have them on this corner, on Monday morning, at seven o'clock, and I will show you the shop," was the response, and which was given with so much prompt assurance, that the proposition was at once agreed to. This, as already stated, occurred within a few hours after R.'s arrival in the place; his first business, therefore, was, to procure a shop, in order to meet this impromptu engagement, which he soon succeeded in doing. On Monday morning, the old gentleman appeared at the corner with his team, containing the bodies, where he was met by Rogers, prepared, as he had promised, to "show him the shop," so that in four days after his entering Springfield he had started a coach-trimming establishment, and was driving a brisk business, and this, too, without having previously had the slightest acquaintance with a single soul in the town. It was Rogers' intention to leave Springfield on the day of his arrival there, so that it is to the stage-coach accident that his very successful four months' episode "on his own hook," in that town, is attributable, at the end of which period, he returned to Philadelphia, after an absence of two years.

He had not been in Philadelphia long, however, before the impressions left behind him, in New England, gave rise to so many solicitations, from the friends he had made in that quarter, for him to return, that he finally consented. The major part of his second trip East was spent in Boston, and some few of the principal towns of Massachusetts, in first-class shops, and executing the finest work.

In the winter of 1844, Mr. Rogers, having made a pretty thorough acquaintance with the coach-making facilities of Philadelphia, New York, and the towns of New England, set out for the western country. His first stopping-point was at Madison, Indiana; but, finding the change rather inauspicious in several respects, he soon decided to remain there no longer than to fulfill an engagement, during which, however, he introduced many new styles of work, some of which bear his name in that region of country to this day. We next find him traveling through Kentucky and Tennessee, and, while in the former, giving evidence of a capacity for describing the wonders of Nature, scarcely less remarkable than the artistic taste evinced by him in his profession, if we may judge from his admirable description of the Mammoth Cave, written to a gentleman in London, and subsequently published in an English journal. His intercourse with HENRY CLAY, during his visit to Ashland, had, as Mr. Rogers has frequently admitted in our hearing, much to do with shaping his future course, and to this day he is proud to number among his most important business maxims those received from that venerated statesman during his visit to Kentucky. When a *boy* he had a strong desire to visit the Island of Cuba, and when we find the *man*—with the directness of character and tenacity of purpose possessed by Wm. Rogers—as far southward as Kentucky, we may rest assured that the dreams of his boyhood meant something; and, accordingly, we next find him in Huntsville, Alabama, still working his way South, until he reaches New Orleans, where he embarks for Havana, carrying with him letters of introduction to General O'Donnell and several other prominent citizens. Of his trip to and arrival at Havana he retains a rich fund of anecdotes, which he occasionally unfolds to his friends in a social way.

His visit to Cuba filled the cup of his ambition for travel; and accordingly, in a few months, he went back to New Orleans, and from thence to Louisville, Kentucky, where he worked until the following April, when he again returned to Philadelphia with the view of engaging in business for himself, which had, in fact, been his aim and object from the day he was entered as an apprentice to the business.

Mr. Rogers had now spent several years in what, to the superficial observer, may seem merely as the unsettled life of a cosmopolite. The truth, however, is exactly the reverse of this conclusion. Having acquired a full and minute knowledge of the business he intended to follow, he had the sagacity to see that, to cater successfully to the wants of sections remote from Philadelphia, a degree of personal knowledge of those sections was necessary. Prompted by this conviction, he traveled, partly with the view of perfecting himself in all the branches of his profession, but mainly to obtain that intimate acquaintance with men, and especially such as he might wish to become his future patrons, which every wise business man knows from experience to be a necessity. This devious tour, then, of Mr. R., instead of being without a purpose, was made with the same prudent motives that a builder has in laying a firm foundation before commencing his above-ground operations. Being an acute observer of men and things, and

possessing social qualities which at once admitted him to the first circles of society, and, withal, a straightforward integrity that inspired the confidence of every acquaintance he made, it is not difficult to perceive that a tour, such as he accomplished, would ultimately redound to immense business advantage, provided he obtained the necessary facilities for making them available. This Mr. Rogers was now about to undertake. His first step was, to buy out a small establishment, located at the corner of Sixth and Brown streets, on a lot belonging to the Girard Estate. His next object was to procure the right stamp of workmen. To effect this he found it necessary once more to visit New England, which he did, and returned with seven competent hands, and commenced, in Philadelphia, the business of coach-making, in the autumn of 1846.

(To be continued.)

Miscellaneous Literature.

For the New York Coach-maker's Magazine.

THE THREE-FOLD NATURE OF MAN.

No. V.

(*Continued from page* 169.)

These exercises, persevered in and continued from day to day and from year to year, will soon discipline and strengthen the mind, and furnish it with that various knowledge which will prove to us an ample satisfaction for our pains. Many auxiliary means may also be employed in the same pursuit. The private instructor or the school-teacher, the lecture-room, the literary and debating club, the lyceum hall, and other means offering similar advantages, may be used as occasion offers, and as our wants demand. To the young man of aspiring mind and lofty ambition, every man he meets will be an instructor, and every place a school-room. Facilities for improvement will multiply as they are sought for. The secrets of Nature and of God may be had for the asking, and not without. Nature, with her exhaustless stores of wisdom and knowledge, is niggardly only to the sluggard. Stir thyself, then, O man! Arise in thy might! Survey thy position. Look around thee and within thee. Away to the restless and unwearied strife! A strength thou art not aware of is in thee. Trust thyself. Learn the art of self-reliance. Bring out your own powers. You know not what you can do until you try. Don't look to another so much as to yourself. Don't look to the past so much as to the present. Don't look to foreign lands so much as to your own immediate home. It is by depending on others, and looking away from ourselves, that we lose our own native force. Says Emerson: "Accept the place the Divine Providence has found for you—the society of your contemporaries, the connection of events. Great men have always done so, and confided themselves childlike to the genius of their age, betraying their perception that the Eternal was stirring at their heart, working through their hands, predominating in all their being." And be not discouraged by the slight obstacles that may hedge up your path. I need not mention the many bright names that have shone in the galaxy of literature, who have come up out of obscurity, and have made their way through obstacles of the greatest magnitude. Self-made men are all around you. Our country is prolific of this species. They belong to the present and to the past. They are in our midst. Aspire to their elevation and greatness. The battle, the war, is before you. Off to the goal! Let the well-fought battle attest your earnestness, and bring to you the laurel crown. So will you be great in yourself, by dint of your own exertions, and it may be in spite of circumstances; and, standing upon the lofty pinnacle you have gained, and surveying the realm of reason and of thought which you have so diligently explored and rightfully made your own, you may truthfully and justly exclaim,

"I am monarch of all I survey,
My right there is none to dispute."

We close this part of our essay by an extract from the celebrated Dickens, on self-made men. In an address recently delivered in Manchester, before the "Institutional Association of Lancashire and Cheshire," he says:—"Let me endeavor to recall, as well as my memory will serve me, from among the most interesting cases of prize holders and certificate gainers, who will appear before you, some two or three of the most conspicuous examples. There are two poor brothers from near Chorley, who work from morning to night in a coalpit, and who in all weathers have walked eight miles a night, three nights in a week, to attend the class in which they have attained distinction. There are other two poor boys from Bellington, who began life as piercers, at 1s. or 1s. 6d. per week, and the father of one of whom was cut to pieces by the machinery at which he worked, but not before he had himself founded the institution in which this son has since come to be taught. These two poor boys will appear before you to-night, to take the second class prize in chemistry. There is a plasterer from Bury, sixteen years of age, who took a third-class certificate last year at the hands of Lord Brougham; he is this year again successful in a competition three times as severe. There is a wagon-maker from the same place, who knew little or absolutely nothing until he was a grown man, and who has learned all he knows, which is a great deal, in the local institution. There is a chain-maker, in very humble circumstances, and working hard all day, who walks six miles a night, three nights a week, to attend the classes in which he has won so famous a place. There is a moulder in an iron foundry, who, whilst he was working twelve hours a day before the furnace, got up at four o'clock in the morning to learn drawing. 'The thought of my lads,' he writes, in his modest account of himself, 'in their peaceful slumbers above me, gave me fresh courage, and I used to think that, if I should never receive any personal benefit, I might instruct them, when they came to be of an age to understand the mighty machines and engines which have made our country, England, pre-eminent in the world's history.' There is a piecer at mule frames, who could not read at 18, who is now a man of little more than 30, who is the sole support of an aged mother, who is arithmetical teacher in the institution in which he himself was taught, who writes of himself that he made the resolution never to take up a subject without keeping to it, and who has kept to it with such an astonishing will, that he is now well versed in Euclid and Algebra, and is the best French scholar in Stockport. The drawing classes in that same Stockport are taught by a working blacksmith; and the pupils of that working blacksmith will receive the highest honors of to-night. Well

may it be said of that good blacksmith, as it was written of another of his trade by an American poet:

'Toiling, rejoicing, sorrowing,
Onward through life he goes;
Each morning sees some task begun,
Each evening sees its close;
Something attempted, something done,
Has earned a night's repose.'

Ladies and gentlemen—to pass from the successful candidates to the delegates from local societies now before me, and to content myself with one instance from among them. There is among their number a most remarkable man, whose history I have read with feelings that I could not adequately express under any circumstances, and least of all when I know he hears me; who worked when he was a mere baby at hand-loom weaving until he dropped from fatigue—who began to teach himself as soon as he could earn 5s. a week—who is now a botanist, acquainted with every production of the Lancashire valley—who is a naturalist, and has made and preserved a collection of the eggs of British birds, and stuffed the birds—who is now a conchologist, with a very curious, and, in some respects, an original collection of fresh-water shells, and has also preserved and collected the mosses of fresh-water and of the sea—who is worthily the president of his own local literary institution, and who was at his work this time last night as foreman in a mill. So stimulating has been the influence of these bright examples and many more, that I notice among the applications from Blackburn, for preliminary test examination papers, one from an applicant who gravely fills up the printed form by describing himself as 10 years of age, and who, with equal gravity, describes his occupation as 'nursing a little child.' Reverting once more to the whole collective audience before me, of the advantages of knowledge I have said, and shall say, nothing. Of the certainty with which the man, who grasps it under difficulties, rises in his own respect and in usefulness to the community, I have said, and shall say, nothing. In the city of Manchester, in the county of Lancaster, both so remarkable for self-taught men, that were superfluous indeed. For the same reason I rigidly abstain from putting together any of the shattered fragments of that poor clay image of a parrot which was once always saying, without knowing why, or what it meant, that knowledge was a dangerous thing. I should as soon think of piecing together the mutilated remains of any wretched Hindoo who has been blown away from an English gun. Both, creatures of the past, have been, as my friend, Mr. Carlyle, vigorously has it, 'blasted into space,' and there, as to this world, is an end of them. So I desire, in conclusion, only to sound two strings. In the first place, let me congratulate you upon the progress which real mutual improvement societies are making at this time in your neighborhood, through the noble agency of individual employers and their families, whom you can never too much delight to honor—elsewhere, through the agency of the great railway companies, some of which are bestirring themselves in this matter with a gallantry and generosity deserving all praise.

"Secondly, and lastly, let me say one word out of my own personal heart, which is always very near to it in this connection. Do not let us, in the midst of the visible objects of Nature, whose workings we can tell off in figures; surrounded by machines that can be made to the thousandth part of an inch; acquiring every day knowledge that can be proved upon a slate, or demonstrated by a microscope—do not let us, in the laudable pursuit of the facts that surround us, neglect the fancy and the imagination, which equally surround us as a part of the great scheme. Let the child have its fables; let the man or woman, into which it changes, always remember those fables tenderly; let numerous graces and ornaments that cannot be weighed and measured, and that seem at first sight idle enough, continue to have their places about us, be we never so wise. The hardest head may coexist with the softest heart. The union and just balance of these two are always a blessing to the possessor, and always a blessing to mankind. The Divine Teacher was as gentle and considerate as He was powerful and wise. You all know how He could still the raging of the sea, and could hush a little child. As the utmost results of the wisdom of man can only be at last to help to raise this earth to that condition to which His doctrines, untainted by the blindnesses and the passions of men, would have exalted it long ago, so let us always remember that He set us an example of blending the understanding and the imagination; and that, following it ourselves, we tread in His steps, and help our race on to its better and best days. Knowledge, as all followers of it must know, is a very limited power indeed, when it informs the head alone. But when it informs the head and heart too, it is a power over life and death, the body and the soul, and dominates the universe."

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER X.

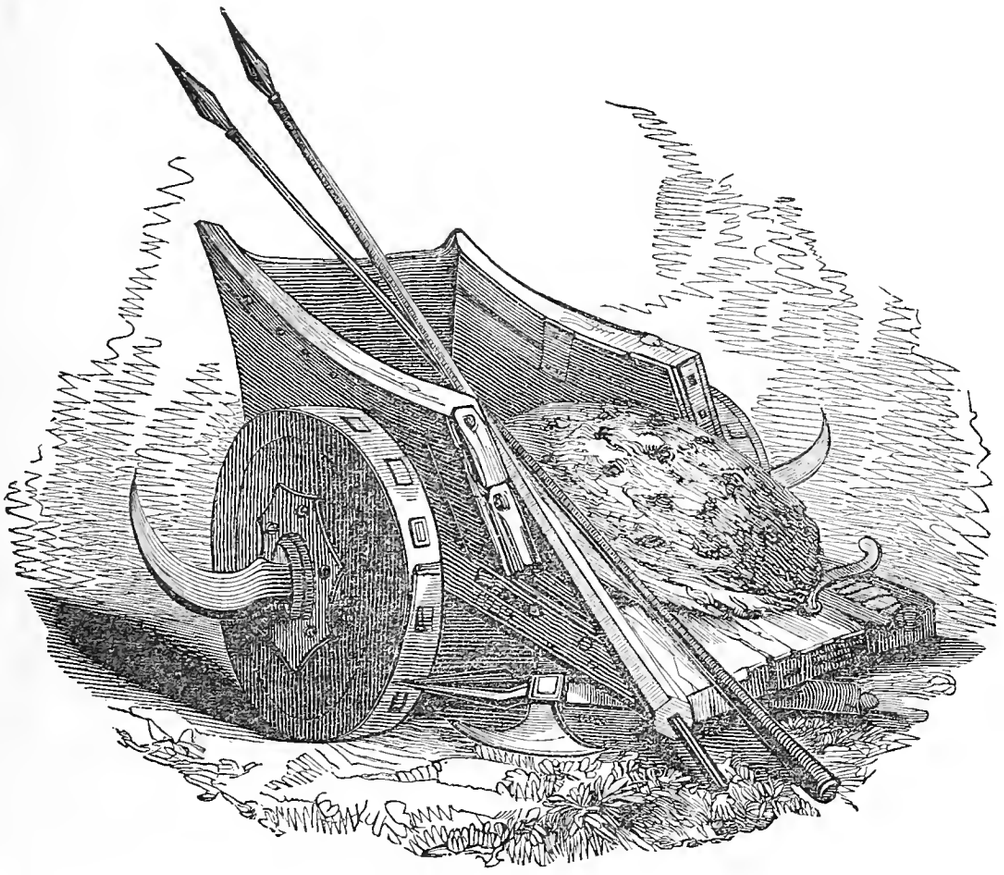
The scythe-chariots of Persian invention, afterwards found in Britain—Julius Cæsar's description of the way in which chariots were used in battle by the British—Scythe-chariots unknown in Greece—British chariots in a Roman procession.

"*Quæ assensum parit, operis effœta est.*"

THE scythe-chariots invented in Persia seem to have been imitated by the Gallic nations afterwards, and continued in use down to the time when Julius Cæsar invaded Britain. Nearly 300 years previous to that event, when the Gauls were established in Italy, and in close alliance with the Samnites, a successful charge of the Roman cavalry was repulsed, and the entire army thrown into dismay, by the approach of war-chariots. The Roman soldiers appear to have been ignorant of their former use; for, on seeing a cloud of dust raised by their coming, they were in great trepidation. Livy, the Roman historian, says: "A number of the enemy, mounted on chariots and cars, made towards them with such a terrible noise, from the trampling of the horses and the rolling of the wheels, as affrighted the horses of the Romans, unaccustomed to such operations. By this means, the victorious cavalry were dispersed, and men and horses, in their headlong flight, were thrown in heaps to the ground. The same cause produced disorder even in the ranks of the legions: through the impetuosity of the horses and the carriages they dragged through the ranks, many of the Roman soldiers in the van were trodden or bruised to death; and the Gauls, as soon as they saw the enemy in confusion, followed up the advantage, nor allowed them breathing time."

The use of war-chariots on the Continent seems to have afterwards gone into disuse, for Cæsar says nothing of

them in connection with his battles with the Gauls. The war-chariots, which, on several occasions during the invasion of Britain by Cæsar's army, the use of which, at that period, would seem to have been peculiar to the Britons, would, of themselves, indicate a degree of mechanical skill not found on the Continent. These cars were of various forms and sizes, some being rude, others of curious and even elegant workmanship, which, by glancing at our engraving, can readily be seen.



ANCIENT BRITISH WAR-CHARIOT.

Those most commonly in use carried each a charioteer for driving, and one, two, or more warriors for fighting. They were evidently built very strong, with the extremity of their axletrees, and perhaps some other salient points, armed with scythes of a hooked form, for tearing and cutting whatever came in their way, as they were driven rapidly along. The horses attached to them were perfect in training, and so well in hand that they could be driven at full speed over the most uneven parts of the country, and even through the forests, at that period abounding in Britain. The Romans were astonished at the dexterity and number of the chariots brought against them. Cæsar describes the manner in whicht he Britons brought their scythe-chariots into action. He says, in the fourth Book of his Commentaries (Chap. 33):

"This is the manner" in which the Britons fight "from chariots: at first they ride around in all directions and hurl their darts; and by the very squeak of the wheels (*strepitu rotarum*) they alarm the horses *of the foe*, and generally throw the ranks into disorder; and when they have worked themselves in among a troop of cavalry, they jump down from their chariots and fight on their feet. In the meanwhile the charioteers (*aurigæ*) come gradually out of the encounter and place themselves in such a position with the chariot, that, if they should be hard pressed by a multitude of the enemy, they have *the chariot* in readiness for their reception. Thus the Britons exhibit in *their* battles the celerity of cavalry and the firmness of foot soldiers; and so bring themselves, by daily practice and exercise, that they are able to hold in their horses at full gallop, in steep and precipitous places, and in one moment to manage and turn and place them under the beam (*temonem percurrere*) and stop them under the yoke, and afterwards they are accustomed to betake themselves, very quickly, into the chariot." Such was the effect of these chariots on the Roman legions that the Britons had nigh gained the victory over the enemy in the first encounter. Subsequent experience, however, provided against danger from such onsets. An early English writer tells us:

These chariots, which it would appear were utterly unknown in Greece, seem to have been of two kinds, the *corvini*,* or wains, heavily armed with scythes, used especially for breaking in upon an army, and a lighter kind, called *essedæ*, adapted to situations and circumstances where the former could not act with the same efficiency, and sometimes performing the duties of cavalry; and so great was their number that Cassivellaunus left 4,000 *essedæ* as a corps of observation to watch the movements of Cæsar after his invasion of Britain.

The existence of hooks and scythes to the axles of chariots seems to have been questioned by some, as neither Cæsar, nor Tacitus, nor any cotemporary writer except Pomponius Mela, who wrote in the first century, mentions the fact, in speaking of war-chariots. Weapons, answering to the description, have been found, however, on the field of these ancient battles. It is also recorded, that between the period of Cæsar's invasion and that afterwards ordered by Claudius, these chariots attracted notice, and were exhibited as curiosities in Italy, and shown in the splendid pageantry with which Caligula passed over the sea from Puteoli to Baiæ on a bridge of boats. Suetonius says he rode in a chariot drawn by two famous horses, followed by a party of friends, in British chariots, which were probably trophies of Cæsar's conquests. At subsequent periods these war-chariots of the Britons were often alluded to by the poets and historians of Rome. A great fondness for horses, and a skill in riding them and accustoming them to drawing cars and chariots, appears to have prevailed

* Richard of *Cirencester's Ancient State of Britain*, B. I., c. 3.

among the ancient Celtic tribes. These ancient inhabitants of the British Islands had their traveling chariots and wagons for domestic uses, as history sufficiently proves, although they afterwards fell into disuse, until the introduction of carriages into England once more in the reign of Queen Elizabeth, some sixteen centuries afterwards, although some time during that period they would seem to have existed in Germany and some other continental cities, in some one or other form; which subject will afford matter for inquiry in our next article. S.

TRICKS AND BAD HABITS IN HARNESS HORSES.

(From the "London Field," the Country Gentleman's Newspaper.)

THERE are many habits horses may have that in no way owe their origin to vice, yet are often as troublesome and sometimes as dangerous as those which have.

I have lately said as much about breaking horses to harness as I consider may be useful to the casual reader to know, and more, I suspect, than most persons would take the trouble to put into practice. If, however, I give such hints as may enable them to know whether horses are being judiciously treated by others, my time will not have been misspent. I had always a peculiar pride (I must call it) in not being beat by a horse, and candidly allow, have often more pains to cure a fault or failing than it was worth.

Having said so much about harness horses, I am induced to mention certain habits many horses have that are very annoying. Hugging the pole is one. It greatly annoys the other horse, and he will probably learn to do the same thing, not from imitation, but from leaning inward so as to enable him the better to stand against the other leaning on him. I have often seen a pair of pacers thus going, each leaning on the other, till they might be figuratively likened to a pair of open compasses. It is extremely dangerous in frosty weather, or where the road or pavement is, from any cause, slippery. It has the effect of causing a horse, in descending a hill, to draw straight from the pole, by which they are at their full length; whereas, horses going (as they should do) a little wider than on ordinary occasions, somewhat shorten the length by being drawn out a little diagonally. A further advantage is gained by this; it gives the horses greater power to keep the pole steady, which is quite necessary for safety in going down a steep hill. Hugging the pole may be prevented in a great measure, by hitting a horse on the inside shoulder, but this lasts only for a minute; and, again, if the horse is hit severely enough to produce the desired effect, he very probably rushes forward, thus relaxing the pole-piece, and leaving the entire weight of the descending carriage to be supported by the other horse.

A horse having this vile habit, I should recommend others to sell, unless they were disposed to try a plan that I found effectually cure one of my own of the propensity. I drove him at wheel on the off-side; but, whichever side he was put, he "hugged the pole" the same. I had a piece of board, about ten inches in width, screwed to the off-side of the pole. On the off-side of this surface I nailed some strong green furze, clipping it till it did not project more than three inches on the side the horse went. I took care to give him a hole in the pole-piece, the same with the near-side trace, and lengthened his coupling rein; so he had not occasion to approach the pole thus armed. This being merely a lesson to the horse, I took care to manage the drive so as only to have occasion to turn the carriage to the off-side during the lesson; as usual, he began, or attempted hugging the pole, but he started from it as if a tarantula had stung him. I suppose in a few minutes the smarting went off, when he tried the same game, with the same result. I conclude the second application of the furze, acting on the first, produced increased effect, for it was a longer period before he transgressed again; and before my drive was finished he took especial care not to approach the pole. Though this bid fair as to curing him of a bad habit, I in no way expected a lesson or two would cure him; but ten days' driving effectually did, and afterwards it was somewhat laughable to see, if he forgot himself, or attempted pole-hugging, with what alacrity he jumped back to his proper place. I certainly found a trifling inconvenience from his subsequent dread of the pole. If I wanted to turn the carriage to the near-side, the other horses or horse—if only a pair—had to do it; for, save and except the off-side trace, he would not, so far as the pole went, lend a hand. This was, however, nothing when put in comparison with hugging the pole. Whether in the course of time he forgot the lessons, I know not, but he quite well remembered them during the twelve months I drove him, when I sold the team.

Another very objectionable habit some horses have, is the direct opposite to the last mentioned one: this is, hanging away from the pole, especially in going down hill; some horses will practice it to a really alarming extent. Driving one of the Bath coaches, on coming to a hill the coachman warned me "to mind the two wheelers, for they were very awkward." I soon found them so, for they went down the hill hanging away from the pole till their position and bodies could only be figured by the letter "V," the off-side wheeler, as it were, riding on the off-trace till we came to level ground. He was a very clever horse, and a very fine goer, probably sold to a coach for the very fault I have described. From his hanging off the pole, he so lugged it to the off-side that the near-wheeler, in his own defense, was forced to do the same thing, to counteract the effect produced by the other horse; hence their both going, as I have said, like the letter V. I thought he would be a good subject to experimentalize upon. I bought him. For his accommodation I had a deal rafter fixed to the splinter-bar; this was brought a foot beyond the roller-bolt; then I got another piece, and loosely fastened that to the end of the transverse piece, bringing it like a shaft to the front of the horse's bosom, and fastening it to the harness. Just where his quarters would come if he leaned outwards, I clothed it, as in the other case, with furze. The result was, *mutatis mutandis*, the same; in a few times driving, it cured him. I never had occasion to try the same experiments on other horses, so do not give them as a general mode of curing all horses practicing the same annoying habits; but it completely succeeded with the two I have mentioned; and I merely relate the two anecdotes to show that a very simple contrivance will often baffle a horse, without any direct violence being used.

Some horses have a habit (as it is termed) of snatching at their traces on first starting. This I have frequently stopped by putting a cavesson on, and fastening an extra rein to the pole. If the horse brings his head to a proper place and goes off quietly, this is no inconvenience to him; but if he bolts suddenly forward, wildly throwing (or attempting to throw up) his head, it gives him a rather unpleasant snatch back, accompanied by

a pinch of his nose. A few lessons will, in most cases, check it. With a heavy carriage behind, this fault is not much consequence, its only effect being, possibly, the breaking of a trace, unless a very strong one; but, in a light vehicle, the violent snatch is very unpleasant, and it is quite worth the trouble of curing, or, at least, attempting to cure.

It is frequently found that horses, on receiving any indication to stop, will do so suddenly, creating an unpleasant sensation to those within the carriage. Old Donington, the race-horse, did something similar—he knew as well when he had passed the winning-post as did his jockey, and, winning or losing, would, if permitted to do so, stop as if he was shot, and, with a jockey who did not know this propensity, would very likely unseat him. The only way was to threaten him with the whip, and thus keep him going till he stopped gradually like other horses. The horse that does the same thing in harness must be kept up to his collar, by feeling the whip till the carriage is smoothly and gradually brought to a stop.

The Home Circle.

For the New York Coach-maker's Magazine.

AMY GLENN'S VISION.

BY LUA DELINN, OF CINCINNATI, OHIO.

"Almost three!" said Amy Glenn, in a troubled tone, as she drew up a chair beside the kitchen table and spread her writing materials before her. "I staid at home to-day expressly to write an article for 'The ——,' and now at three, it is not commenced. Here's the poem for 'The Weekly——.' I can't more than finish that, but it will be *something* accomplished." Then, after a moment's thought, her pen began to move rapidly over the paper.

"Why, Amy, how long it takes you to wash up a few dishes, and put things to rights," called out old Mr. Glenn, from the next room, to his granddaughter. "Are n't you most through, out there?"

"O dear!" thought Amy, "I might as well have accepted Sarah's invitation. I should, at least, have spent a pleasant day, and should have written quite as much. If I could only have a fire in my own room, I shouldn't hear when any one called me." 'Twas but momentary, this selfish feeling. Laying down her pen, and closing her portfolio, she hastened to the side of the old man, and said, "Can I do anything for you, Gran'pa, I'm ready now."

"I want you to read this paper to me. You needn't read all—just begin on the first page, and name all the captions through, I'll tell you which to read." Amy took the paper, a mammoth sheet, and read, "'Selected Poetry.' I think this is something very fine: shall I read it?" "No; I don't care for the poetry. Strange that they crowd out other matter with such trash: go on." "'African Colonization.' A long speech before some society: covers nearly a page. Don't call for that, gran'pa; you're in favor of the scheme, now." "Well, just read a little of it: I'll tell you when to stop. My views, exactly," said Mr. Glenn, when the last sentence of the speech was concluded. "There are a few sober-minded men left yet, it seems. What next?" And the "Present Administration" was reviewed in an article of three or four columns. "The Governor's Message." "I'd like to have the gist of the matter; when I've heard enough, I'll call for the next." So Amy read on, column after column, till the last was ended, and gran'pa Glenn was asleep in his easy chair.

"Amy," said gran'ma Glenn, "I wish I had some more yarn: I've just knit up the last, and I feel so lost without any knitting-work."

"There is a store on the next square: I'll go and get you some."

"No! they always keep the smoothest and best at Smith's. I must have it from there, if anywhere; but then it's so far to go for a little yarn," and the old lady looked anxiously at her granddaughter. "You hadn't better go 'way down there, had you? though, to be sure, the walk isn't anything for you, so young and strong." For a moment Amy hesitated. She thought of the unfinished poem and other promised articles not yet commenced; but, another moment, and she started up, saying pleasantly, "I'll get it for you," and left the room.

"Gran'ma is so much better satisfied to have it from Smith's, and it didn't take me so *very* long; I'm glad I went. But this evening shall be mine at all events. We'll have supper early, and I'll have a nice long time to myself." But Amy "reckoned without her host." It is true she had supper over early, but then her attention was claimed by the different members of the family. First, there was Gran'ma. She was going to foot a pair of socks, but her eyes were old and she couldn't see to take up the stitches. "Amy hadn't anything else to do, had she?" Then, when the stitches were taken up, sister Belle was crying over her problems in Algebra. Amy's sympathies were at once aroused. Mathematics, in all its branches, had been the one great trial of her life at school. The pages of Algebraic characters, which had so much interest for some of her schoolmates, were to her suggestive only of the grinning teeth of a skeleton.

She took the slate, carefully examined the work, and pointed out its errors, then, bidding her sister commence anew, she watched her till the whole problem was solved, explaining at every step what she remembered had once perplexed herself.

"Amy, if you're done helping Belle, won't you help me write my composition? I can't think of one word to say."

It was the first time the little Anne had ever attempted to put her thoughts on paper, and the task seemed to her most difficult. Her teacher had unwisely sought to impress the mind of the beginner with "the great importance of knowing how to write good compositions." No wonder, then, that the little girl was frightened at the greatness of her task, and that she didn't dare to express her simple little thoughts in her own childish way. She had been left to choose her own subject, but had been required to "write, at least, a page and a half." How could she do it, she asked, when she couldn't make a single thought to begin with. She remembered that some of the older girls had written on "The Advantages of a Good Education," so she had chosen that for her subject.

Amy took the child into her lap, saying "Wait a few minutes, my pet, and let me rest; you know I've been thinking *so* hard about Belle's Algebra lesson. But you may talk to me all the time as fast as you please; you may tell me all you saw this morning on your way to school." Anne, not suspecting her sister's object, and never thinking it was a matter of "*importance*," told in an artless manner

all she had seen at every step of the way, and what she had thought about it all. Many subjects for thought are presented in a walk of a few squares, and a child notices everything, and thinks about it, too. Amy was interested in the child's narration, and even Belle looked up from her problems, and listened to it all. "Now, Anne," said Amy, "take this paper and pencil and write that down just as you told it to me. It will cover more than a page and a half."

"Why, Amy, *that* isn't of any *importance:* it's only what *I* saw, and what a little girl like *me* thought. Miss Jones don't want that." But Amy assured her it was the right kind of "composition" for a little girl to write.

"O! if that is all, I'll never make a fuss about it again. Isn't it easy?"

"I guess," said Belle, "some of the other girls would think so, too, if they had our Amy to help them; but Miss Jones frightens them so, when they begin, that they never get over it. Writing essays is for them a greater trial than even Mathematics is to us, Amy."

"If it is easy for you, Belle, you know how to help them," was the quiet reply.

It was not until eight o'clock that Gran'pa and Gran'ma Glenn withdrew for the night, leaving "the children" to themselves, and Amy was at liberty to resume her pen. She turned to the unfinished poem—the last thought, which had seemed to her a very happy one, was but half expressed, and she could not take it up where she had left it. Then she determined to write, at least, a short chapter of the article she had promised for the next number of "The Ladies' ————," but, as Anne had expressed it, she "couldn't make a single thought to begin with." Weary and discouraged, she dropped her pen, threw herself into her grandfather's easy chair, and gave up to the sad feelings against which she had struggled all day. She had been invited to meet several persons, whose acquaintance she valued highly, at the house of a very dear friend. Her sisters, even the grandparents, and, more than all, her own inclination had urged her to go; but, thinking that by staying at home she could, under all the circumstances, claim the day as peculiarly her own, she had declined the invitation.

But the day had passed, and she had done nothing towards fulfilling her literary engagements. All her time had been spent in doing little things for this one or that one; nothing of any *importance*, that would show for itself—nor yet *any thing to speak of*—only *little things*. It was thus her whole life was passing. She felt that she was capable of exerting a wide influence, that she had the power to do much good, and her spirit was continually fretting itself into fury because she could not control the circumstances which prevented her from using that power. Had it been necessary for her to toil for her own support, and that of the family, she would have done it uncomplainingly. She was willing to make *great* sacrifices to promote the happiness of those around her.

[Are there not many like Amy Glenn, who, in their anxiety to do good on a *grand scale*, forget that "*trifles* make the sum of human things?"]

At first she had not *sought* notoriety; it came to her and she sadly accepted it as an earnest of what the distant future had in store for her. From that time her anxiety to do good was blended with a desire for her own aggrandizement. No wonder, then, if she felt that she was "living to no purpose."

"O Amy, it's *so easy*, mayn't I write another to-morrow night?" But Amy did not answer, and the little one, sinking down by her side, gently rested her head upon her sister's lap, and was soon dreaming of her morning walk. Belle's work was done, and she, too, wandered away into the "Land of Dreams."

It was a beautiful being that *Amy* saw in her vision—such a one as we never see but in dreams, and seldom then. She held a coronet all glittering with precious gems, and her eye seemed vainly searching for a brow which might wear it worthily. At length she spoke. "I am commissioned to seek her whose mission has been most blest to the children of earth, and place this crown upon her brow in token of that with which the King of the Universe Himself shall crown her, in that day when she with the people of all nations shall be presented at His Court. My sister, what sacrifice hast *thou* made for the good, or the happiness of thy fellow-mortals?"

She to whom this question was addressed presented a long catalogue of the Colleges she had endowed, the Church edifices which had been reared at her bidding, and showed her name first on the list of those who had given largely to the benevolent enterprises of the day.

"Of this one shall be written, 'She gave of her abundance,'" and Amy saw another form of celestial beauty, penning the words which the first had spoken.

The next one had no *gold* to give, but she had offered up herself; it was a sacrifice not too great, if she might thus be the means of doing good to the benighted souls in a heathen land. A widowed mother had been left toiling, in her old age, for the support she had expected at her daughter's hands.

"Mistaken sense of duty!" said the angel in a saddened tone, "yet make kindly mention of her;" and the other wrote, "She has grievously erred, but it was done, perchance, in the integrity of her heart." This record was scarcely made, when another came forward, unsummoned, to urge her claim.

"*I*," she said, "have labored in behalf of the *wronged*—the *oppressed*. I have thrown off the trammels which so long have bound my sex, and have stood forth boldly as an advocate of *woman's rights*. Yes, I have lifted up the standard against the tyrant, man, who has denied us the right of suffrage, and who would even deprive us of that prerogative which *woman* ever holds the dearest—the right of *s-p-e-e-c-h*. I have remembered, too, the wrongs of the down-trodden slave. It has been the aim of my life to promote *Liberty and Equality, in its largest sense.*"

The Recording Angel was forbidden to mention this one as a competitor for the crown. That would only be awarded to the *woman* who had best fulfilled the duties of *woman's sphere*.

The next one, supposing there was no work in particular marked out for her to do, had constituted herself a supervisor-in-general over all the rest, giving smiles of approval to those whose lives accorded with her notions of right, but causing others to writhe under the sting of her satire. The only boon she dared to ask was, that the leaves so blotted might be forgotten, and a new page in the Book of Life be granted her.

"Write that she is repentant," said the angel; "we can only commend her to the mercy of the All-Merciful. Now, trembler, I will listen to thy plea."

"I have none to offer. My lot hath been a humble one,

affording me no opportunity to perform any great deeds, such as would stamp me worthy to wear the crown."

"But I would judge for myself. Give me a faithful record of thy daily life."

"Perhaps I have suffered myself to be cumbered with too many cares; but there was *so much* that could be done to make *home happy* to the dear ones who clustered round its hearth, that there was little time left for the cultivation of those shining virtues which would fix the world's attention, increase my influence, and enlarge my sphere of usefulness; yet there were spare moments, and in these I was able to do some *little* acts to make the present bright, though they had no bearing on the future. Once, a poor wanderer crossed my path—one who, faint and weary, was fleeing from oppression. A cup of sparkling water and a plentiful supply of food I gladly proffered, then pointed out the guiding star, and the poor fugitive went on his way rejoicing. If a little child grieved over a broken plaything, or a *broken promise* which some thoughtless friend had made him, I could easily make him forget to cry, and render him happy as before. Once in a while I would put a patch on a little dress for the orphan grandchild of an old lady, who was very poor and had none to help her, or, perhaps, even my slender wardrobe could supply a better. Then, too, I could, somehow, win my way into the confidence of those who *seemed* to have lost all confidence in humanity. I have never found a door closed against me, and you know *an open door must admit the sunlight.*"

"Enough! enough!" and the angel placed the shining circlet on the bowed head, and the Recording Angel wrote: "*She hath done what she could.*"

The vision passed, and with it all the ambitious dreams that Amy had been cherishing for years. She is *awake* now to the *realities* of *life*—its duties and its responsibilities, and those, who see how nobly she meets them all, know that Amy Glenn *is* "living to some purpose."

Who shall say that that was but the dream of an idle hour, or doubt that angels are full often sent to impart to us, in our slumbers, the lessons we might never heed in our waking hours?

For the New York Coach-Maker's Magazine.

EVENING.

Slow fading in the crimsoned sky,
The sun has reached the distant west,
And warbling songsters they have sought
The silent grove for nightly rest.

Oh how I love, at such an hour,
To tread the summit of yon hill,
And catch the last pale glimmering ray
That leaves the evening calm and still.

I love the dew-drops, scattered round
By evening, in her smiling pride—
I love to view the moon's pale beam,
Reflected in the rolling tide.

I love to hear the cricket's song,
Breathed forth in animated strains—
To hear Philomela's plaintive notes,
Sweet, echoing from my native plains.

At this glad hour I'll nature join,
In joyous accents loud and long—
My evening sacrifice shall rise
To heaven, in prayer and grateful song. S.

Pen Illustrations of the Drafts.

For the New York Coach-maker's Magazine.

THE FLORAL PHÆTON.

Illustrated on Plate XXXIV.

Mr. Editor—*Dear Sir:* As you sent me an English design to make a practical draft from, and I could not succeed, I laid it aside and designed this, as something equally extravagant, but not impracticable. As I am determined not to put any draft on the block without testing its practicability, I hope this will be a sufficient excuse for my not using the design sent me.

This body can be made by putting a solid carved side on the rockers, or, by making a swelled-side body, and cutting the carved work out of thin stuff, and glueing it on before it is carved. I should be in favor of the latter. The body-loops can be spliced in the centre under the door: they would be easier handled.

I should think coach-carvers would be likely to encourage this kind of a job. J. Irving.

THE HUNTING BUGGY.

Illustrated on Plate XXXV.

The hunting-buggy, by some denominated a dog-cart, and illustrated on Plate 35 of this volume, we have copied from the *Mercure Universel*, where the credit of the design is given to the Louisianians. Such may be the fact, or it may not; still, it is so finely designed that we think it will be received by our readers as being very creditable to its originator, be he either American or French. We think, however, that, with some alterations, the draft could be much improved.

In the first place, the seat in front is far from exhibiting the American idea of such a "fixture." By substituting a stick-seat for the clumsily constructed one given, we think it would be a great improvement, and give the vehicle a lighter and more tasteful appearance. The vehicle is so very plain and simple that there will be little necessity left for any further explanatory remarks.

As apropos to what we have above said, we would here add, that the French in particular are very apt to call vehicles of their own originating "*Americaine*," when, in fact, we have had no more to do with them than the man in the moon. Of this we find reason to complain, since the parentage of many of the "foundlings" thrust upon us is not very creditable to any nation.

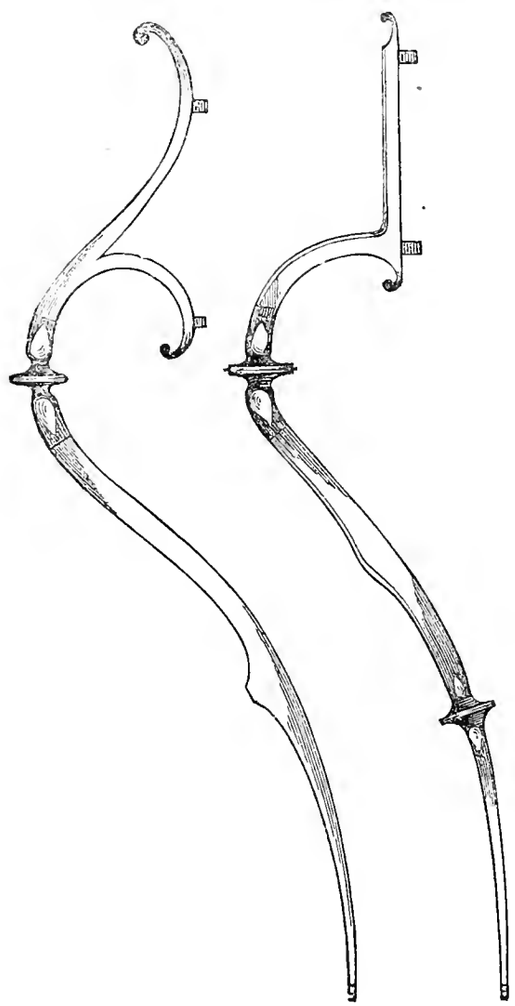
SUMMER PHÆTON.

Illustratad on Plate XXXVI.

The draft found on the plate above-named is partially described on page 199 of this volume, under the head of "Scale Drafting as applicable to carriages," which article the reader is referred to. The design, by our friend Mr. Irving, is so well drawn, that it will not be necessary to occupy our columns with lengthened details. We consider it to be one of the finest drafts we have furnished in this work, although we have presented some good ones before, the product of his hand.

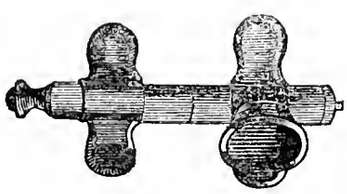
Sparks from the Anvil.

SWAN'S-NECK HANGING-OFF IRONS.



IN France it is not unusual to have the hanging-up irons to coaches, &c., made up ahead, and ready for sale when required by coach-manufacturers. These being articles not easily made by some workmen, makes it convenient to have them furnished to hand. For the illustrations of the two principal forms used, and the king-bolt which follows, we are indebted to the *Mercure Universel.*

A POLE-SOCKET AND KING-BOLT UNITED.



THIS king-bolt is contrived and placed in front of the axle-bed, in order to avoid weakening that portion of the carriage-part, as in the old mode, where a hole was required for its insertion. Its presentation here may be suggestive to a portion of our readers, for which purpose it is given.

For the New York Coach-maker's Magazine.

NEWLY INVENTED BENCH VISE.

IN using the vise as commonly made, the artisan finds a great deal of trouble in getting taper, conical or irregular shaped articles properly held while finishing them. With the view of obviating such difficulty, Messrs. Easterbrook & Allcard, of Sheffield, England, have provided a vise well adapted to holding them securely, no matter how tapering the work may be.

Fig1.

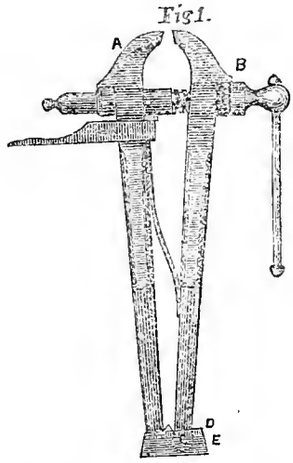


Fig. 2.

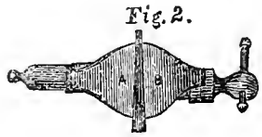


Fig. 1 is a side view of the new vise, and Fig. 2 a plan, showing it holding a piece of tapered work. Here A is the fixed, and B the movable jaw, the latter terminating at the lower end in a spherical ball C, nicely fitted into a corresponding socket in the vise foot. The binding screw for the jaws operates through a similar ball and socket action at the top, hence the ball and socket C, at the bottom, allows of plenty of motion for the jaws of the vise, adjusting itself to the required form, as may be seen in the plan, Fig. 2.

POLISHING AND BLUEING IRON AND STEEL.

There has recently been secured in England a patent for polishing, blueing and annealing iron, by Alfred V. Newton, which, when known, may prove useful to our readers. After the iron or steel is rolled or hammered into the proper shape, and becomes cool, it is steeped in a bath of sulphuric acid and water to remove the scale, just as has long been practiced in foundries with different kinds of castings. Having, by immersion, removed the scale, the iron or steel is afterwards washed, to carry off the free acid. Although this process may leave the article a little honeycombed, still it will be bright. Afterwards, the articles to be operated upon are placed between smooth iron rollers, and submitted to great pressure, which renders them perfectly polished, with smooth and bright surfaces. For this purpose Mr. Newton employs chilled rollers, which are made perfectly true, so as not to leave any mark upon the polished articles. This pressure between the rollers has the

effect to pack the fibres of the metal very firmly together, and makes it so hard that it is capable of withstanding the corrosive action of the weather in a remarkable degree.

To give this polished metal, above described, a blue appearance, it is only necessary to plunge it into a bath of melted lead, where it is held for about five minutes. This process not only gives the article a blue color, but also anneals it. This procedure is said to greatly improve the qualities of iron.

CONNECTICUT IRON AND STEEL.

As early as 1734, attention seems to have been given to the working of the iron mines at Salisbury, Conn. Philip Livingston, of Albany, N. Y., and others, had granted them a patent of one hundred acres of the State lands of Connecticut, to assist and encourage them in their enterprise. They immediately commenced to manufacture iron from the bed of ore they had discovered there, which, as everybody knows, has maintained a high reputation as possessing superior qualities for toughness and other natures most desirable in iron. Six years previous to this (1728), steel had been made by Samuel Higley, of Simsbury, and Joseph Dewey, of Hebron, for which undertaking they prayed for a patent, to prevent all others from coming in competition with them during twenty years. This is supposed to have been the first successful attempt at manufacturing steel in this country. When the superior qualities of American over English iron are considered, it is very singular that a nation of such great enterprise as ours, is still, to a great extent, dependent upon a foreign people for one of its most necessary articles of everyday use. How much longer must such a state of things continue?

Paint Room.

For the New York Coach-maker's Magazine.

HOW TO PAINT A CARRIAGE-BODY.

BY GEO. P. TINKER.

(*Concluded from page* 171.)

Sugar Branch, Ind., January 29, 1859.

Mr. Editor:—In our last, we had got the body rubbed down, and set aside to get dry, and one would suppose that it had now stood long enough to get well dried. The body should now be sand-papered off, as there will always be remaining more or less loose dust and filling that you cannot wash off; hence it should be sand-papered and dusted off clean, and a coat of lead paint applied mixed in the following manner: Take one pound of keg-lead, one-fourth of a pound of lamp-black, one-third of a tea-cup full of japan, and thin down with turpentine. This paint should be ground perfectly fine and mixed very thin. The body should stand forty-eight hours, by which time it will become hard, and should be again sand-papered off, and dusted clean. It is now ready for the color, which should be mixed as follows: One part raw oil, one part varnish, two parts japan, and four parts turpentine. The body should have at least three coats of color, allowing each coat forty-eight hours to dry. After the last coat has become dry, you will sweep the floor, and dampen it by sprinkling, so as to have a room entirely free from dirt; then dust off the body and apply a full coat of body varnish. Afterwards the body should stand three days, by which time it will become hard, and should then be cut down with pulverized pumice-stone and water. The pumice-stone should be pulverized on the paint-stone, afterwards, it should be wet up with water, and ground fine before it is used. There are a great many painters who just mash up the pumice-stone dry, and then wet it as they use it on the body, and this is the reason there is so much scratch-work, for they do not grind their pumice-stone good. Before rubbing off, this coat should be rubbed enough to cut the nibs and lumps off, as too much rubbing will be likely to cut through, which will show streaked after the body is finished. After it is rubbed sufficiently, it should be washed clean with a sponge and cold water. In order to get all the contracted places cleaned out, I use a small paint-brush to wash out the corners and around the irons, where you can't get at it with a sponge. If this is not done, when you come to apply the next coat of varnish, all this stuff is sure to work out and get spread over the body, where it does not add any beauty to the looks of the body, not a particle. After the body is washed clean, it should be wiped off with a buckskin wrung out in cold water, and when dry it is ready to stripe and ornament, after which it is ready for the second coat of varnish. You will prepare the room as above directed, and if you have been using varnish from the can which you are about to draw from, it will be necessary to strain it. For this purpose you should get a clean linen rag of open texture, and strain your varnish through this, which will cleanse it from all lumps. If your varnish is thick from age, it will be necessary to thin it, which may be done by adding a small quantity of raw oil, and a little japan drier. Some painters use turpentine to thin with. This is not right, for varnish will be mealy and brittle enough, when it has been exposed to the weather, without making it more so by adding the turpentine. Next, you will see that your varnish brush is clean, and that your clothes are also clear of dust. Without cleanliness no man can execute a good piece of coach-painting.

Having all things ready, you will now apply a flowing coat of body-varnish, commencing on the panels first, using the brush horizontally, and then, across, perpendicularly, and then again horizontally for the finishing stroke. All varnishing should be done with a light brisk hand. After this coat has been applied, the body should stand ten days, when it should be again cut down as last described—only more thorough—in order to make a level surface, after which apply one more flowing coat of body-varnish, which will finish the body ready for the trimmer. After the trimmer has executed his work, the body must be again rubbed down, and one more flowing coat of varnish applied. When the body has stood eight or ten days it will be ready for the repository.

I always prefer English varnish for the two last finish coats, although the pale body-varnish, manufactured by some American manufacturers, works almost equal to any English varnish. If the directions that I have attempted to give are followed up, they will bring out a good job, and one that will stand the weather. Some may say,

that, by my process, it takes too long a time to get a job done. Very well; but when you do get it done it will be some credit to the painter. A job can be finished in half the time by using less oil and more japan and turpentine. The grand reason why paint so often cracks is, that painters do not sand-paper their lead-paint, nor rub the rough-stuff low enough, neither do they cut down their varnish sufficiently. Hence they get so much paint, etc., on, and not allowing sufficient time for each coat to get well dried, when it is exposed to heat, and wind, and cold, the outside coats dry so fast, that they crack. Then come the hard words. The man that gets the carriage goes to the proprietor, and he goes to the painter, and the painter uses all sorts of words about the varnish, when he is to blame himself only. Sometimes I have noticed jobs that were cracked clear through to the wood. Again, I have seen them cracked open, and showing the priming like a darkey's white teeth when he laughs. Again, I have seen other jobs in which the filling would crack, and show through the varnish before the job would leave the shop. I have likewise seen jobs where the color would crack so as to show in the course of a month or two. The way you can detect the cracking, if in the filling, is that some parts of the body are not filled up; therefore, if the parts that have not been filled up are cracking, it is a sure sign that the fault is not in the filling.

I have extended this article too long already, and will now close for the present.

☞ A correspondent and friend of this Magazine writes as to the manner in which he "keeps". his brushes. He says:

"I take a five-gallon can, cut the top off, then have a cover made to fit the outside, that no dust shall get into the inside; then I solder two pieces of round wire, bore holes in the handles of my brushes, put another piece of wire through them, and suspend them in either oil or varnish. This mode keeps them much more free from dust than any other plan which I have seen."

Trimming Room.

TACKS.

There are many seemingly trivial affairs in mechanics that are yet of great importance when the truth is known. Among these—by no means a very small matter—is the subject of tacks. It is a source of very great perplexity, and one well calculated to try a trimmer's patience, to be obliged to use a poorly-made tack—one that cannot be made to stand with the fingers long enough to be driven home with the hammer, and that, when driven, breaks into a dozen pieces. Here, at the East, we have been accustomed to buy Field's tacks, and to look upon them as being the best article of the kind to be had in the market, and so, probably, *they were once*. Whether the original manufacturer is dead, and some other less careful maker usurped the "right" to *the* Field, or whether other makers, more ingenious and careful, have stepped into the market we cannot tell, but this we do know—and we say it gratuitously—that the "Shelton Company's Full-weight Swedes Iron Tacks," manufactured at Birmingham, Conn., are superior to any made in the United States. Any one having once used these *ne plus ultra* of tacks will never "cry" for any others, indeed, will never use any others where these are to be had at all. Where men work by the day, employers will find that their hands will do work enough more to pay for every tack they use. We know, from long experience, that there is nothing but vexation and loss to be found in a brittle, pointless and dirty paper of tacks. Suppose, fellow craftsmen, you take our advice—we are no way interested in this matter, other than to further your interests—try the Shelton Co.'s article, and let us hear your decision.

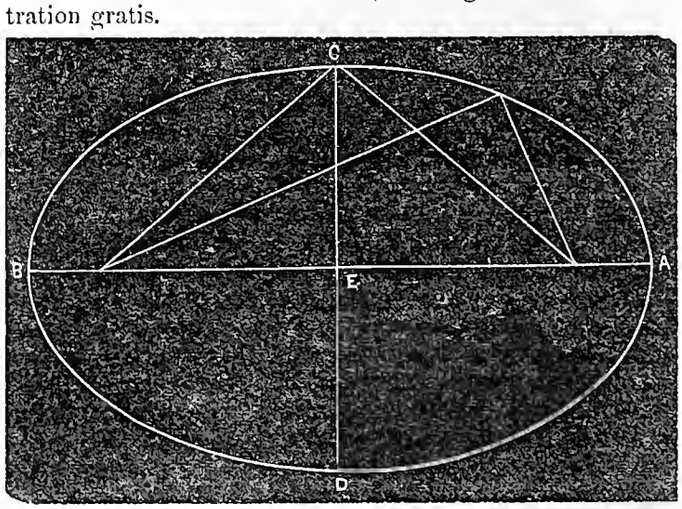
S.

For the New York Coach-maker's Magazine.

OVALS—MR. IRVING'S REPLY TO MR. HINMAN.

Bridgeport, January 31st, 1859.

Mr. Editor, *Dear Sir*:—I am very glad to see so much notice taken of my oval, in the February number of the Magazine, by our fellow-craftsman, J. H., of Fredonia, N. Y. And, in my own defense, would say, I think this prodigy of the string has lost track of my object, which was to illustrate an oval by lines—which rule is applicable in proving all kinds of sweeps and curves—but, as far as old fogyism goes, the finger and thumb rule, which is exhibited in the February number of your Magazine, and, no doubt, practiced by our Western friend, is of older origin than the more scientific and truly correct manner of obtaining such by lines. If I had contributed an oval struck by a string (which I will do now on a more simple plan than our friend's, and for his special benefit, as he deals in such), then, indeed, he might blow about old fogyism. But I hope this friendly rebuff will not deter our worthy knight of the string from entering the field again, to try another lance. I can also inform our worthy friend that there has been a compass invented for striking an oval, and, also, that almost every shop has got a trammel for such purposes. If the gentleman in Western New York would like to know what a trammel is, I will give him an illustration gratis.



ANOTHER OVAL BY A STRING.

Draw the lines A B and C D at right angles to each other, cutting each other at E, which are its transverse and conjugate diameters; then mark the length and

breadth of your oval, and take the distance E B, and set it off from C and A B. These are your points at which to secure your string. Then draw the string with the pencil till it reaches C and D, and describe your oval. J. I.

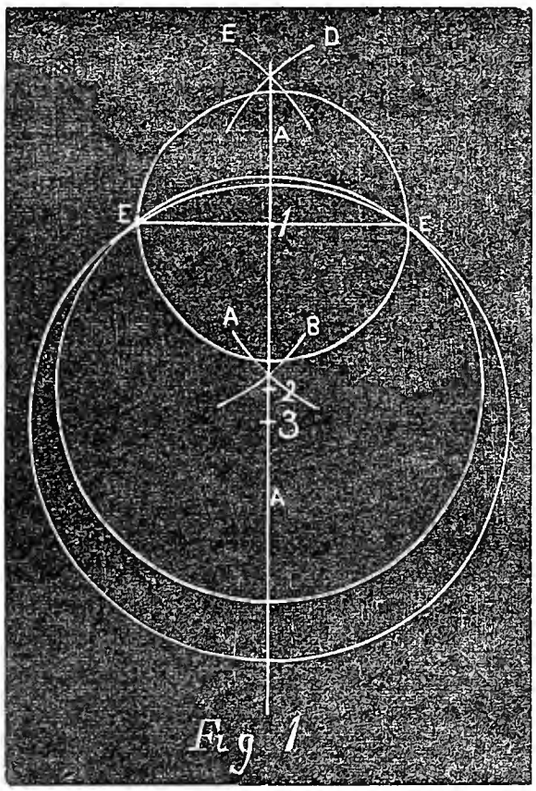
For the New York Coach-maker's Magazine.

GEOMETRICAL AND OVAL FIGURES.

CONTRIBUTED BY M. F. S.

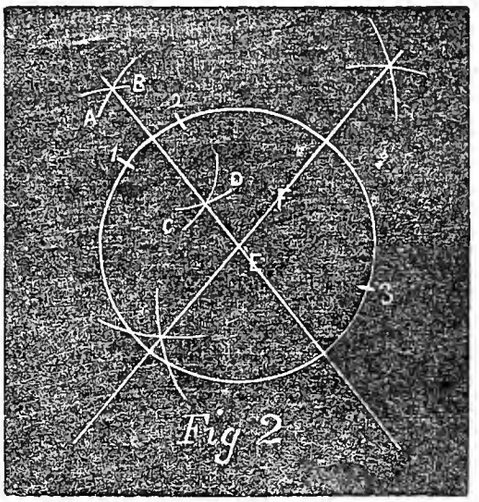
New Haven, January 17 h, 1859.

Mr. Editor:—In the January number of your Magazine I find a rule for striking an "Oval," signed J. I., and who claims that "ovals struck out by a compass are imperfect." But, differing with your correspondent, I will try to show your numerous readers that perfect outlines of an oval can be struck by compasses.

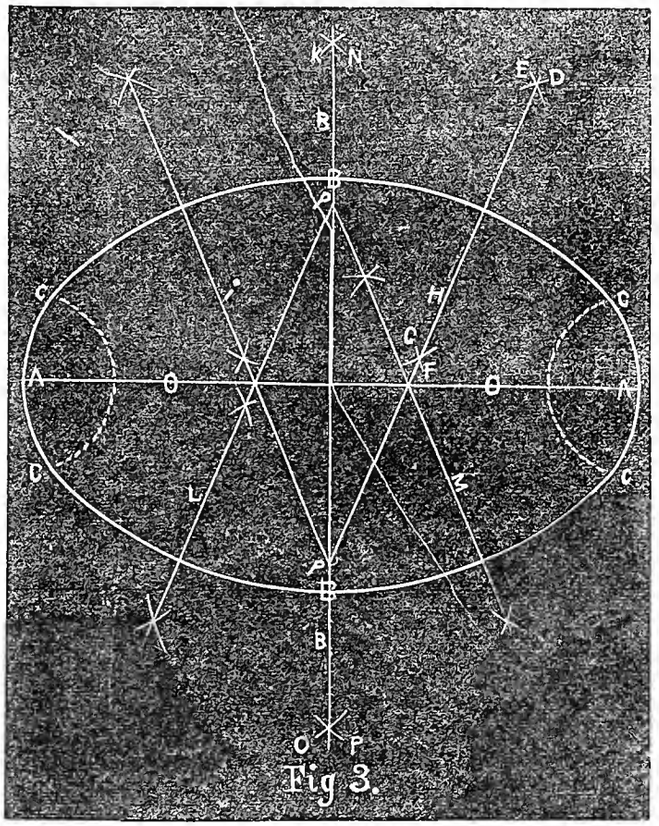


But, before drawing an oval, I may as well explain several "geometrical constructions," which may prove both practical and advantageous to a good many of your patronizers, and at the same time they will help the interested to understand more easily the rule. There are a great many methods and rules for obtaining an oval by compasses; but this possesses one peculiarity different from most others: namely, you can get any shaped oval you wish, either round or pointed at the ends; and, besides, you can tell the shape of it before you go to the trouble of finishing your drawing; which, as will be acknowledged by all, is a decided advantage, because there are some who wish to obtain a certain-shaped oval in a certain space, different from the proportions of a proper oval, and which cannot be done by any other rule than this one—at least, to my knowledge.

Figure 1.—To draw a perpendicular line upon a horizontal one: *ee* is the length of the horizontal one; place one point of your compasses on *e*, and with the other extended to any optional radius; then describe part of a circle above and below the line, as *a* and *d*; then take the same radius from the other point, *e*, and mark *b* and *c*; then draw a line from where *ab* and *cd* cross each other.



This will give you the perpendicular line, *aa*, and at the same time you will have the centre of the distance between *ee*, which is at 1. Now you want "to draw a circle through two given points," *ee*. You will see, from the figure, that you can draw any number of circles through



the points *ee*. To illustrate this, I have drawn three different circles through the same points; I might draw a great many more, but there is no need of it. The circles that you wish to pass through these points, as you will notice, must all have their centres on the line *aa*, as 1, 2, and

3 in this figure; and if you reach one point, *b*, with your compasses, having line *aa* for your centre, you will most assuredly reach the other.

Figure 2.—How to draw a circle through three given points not in straight or right line. When you have only two points given, you can draw any number of circles through them; but when you have three points given, as here, 1, 2, and 3, then there is only one circle that will pass through these three points. First draw a perpendicular line on the points 1 and 2, which is done as in fig. 1, by describing with your compasses the circles of *abcd*; then, drawing a line through these two points, where the circles intersect each other, which here is line *e*; then draw another line perpendicular to 2 and 3, line *f*, and wherever line *e* crosses *f*, that will be the centre of your circle, passing through the three given points.

Figure 3 shows how to draw an oval. First mark the length, *aa*; then the width, *bb*; then sketch or mark the shape of your oval, which you like best, upon your board, within the limits of *aa*, *bb*; then, by placing your compass on *aa*, you can extend it until you have the radius most desired to form your oval. The point in this figure is O, and circles from *c* to *c*. Now, your three points, through which you wish your line to pass are *cbc*, and, by drawing the perpendicular lines *h*, I, *l*, *m*, the same as in fig. 2, you will find the centres to be at *p*, *p*; then, by placing one point of your compasses on *p*, you can easily draw a line passing through *c*, *b*, *c*, at the top as well as the bottom.

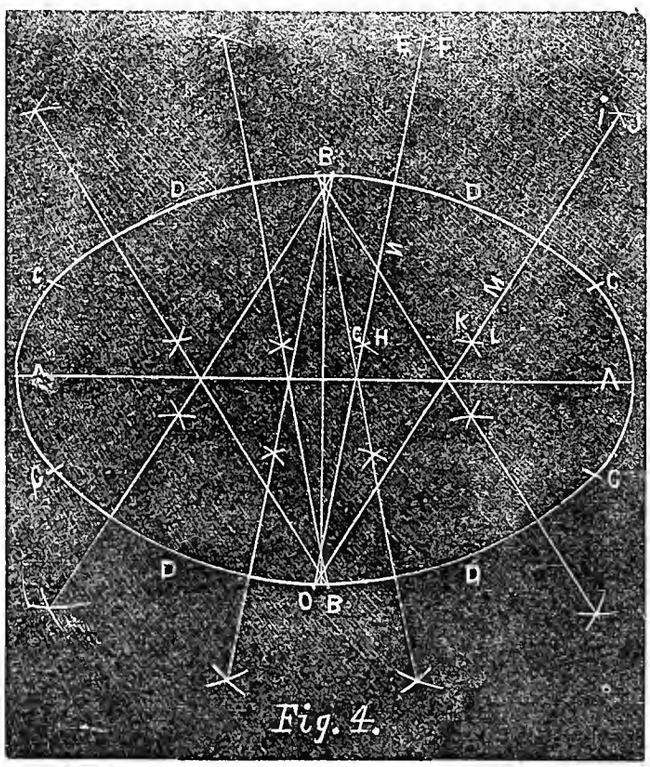


Fig. 4.

In *Fig.* 4 I have chosen more points, just to show that you can draw the oval through any points you wish. Length, *aa*; width, *bb*; the points are *c*, *d*. The construction is similar to that of fig. 3, only one more line is to be drawn to each quarter, as you will notice from the figure.

The New York Coach-maker's Magazine.

MARCH 1, 1859.

E. M. STRATTON, Editor.

TO READERS AND CORRESPONDENTS.

☞ For the accommodation of those removing, it has always afforded us pleasure to change the direction of this Magazine from one post-office to another, when properly instructed so to do by our subscribers. There are a few, however, so negligent as to defer writing us until we have continued sending this work to their old address a month or more after they have changed their location, then they write us *to give* them the numbers lost by their own carelessness. We have to say to such, that the broken sets on our hands now, from our desire to please our friends, and the increasing demands for our monthly, compel us to adopt another rule hereafter. All notices of change in a P. O. must reach us between the 5th and 25th of the month, as this work is regularly mailed on the 30th of the month preceding its date. All numbers lost from neglect to do so must be paid for at the rate of 25 cents per number, and then we can only obligate ourselves to supply odd numbers when we have them on hand. Will our friends please to bear this in mind?

"F. M., of Ala."—Your letter, inclosing $1, is received. We have mailed you the last four numbers published. We were compelled to do so, or else send the money back, as it is a rule in our office to enter no one's name in our subscription book for a less term than a year.

"N. & T., of Mass."—We know of no such firm as you name, in the carriage business, in New York.

"R. S., of Ga."—We will send you by mail the bear-hair varnishing brush, on receipt of the costs, which will be at the rate of 30 cents per inch. A brush 2½ inches wide will be 75 cts., and the postage, which must be prepaid, 12 cents more, making in all 87 cts.

"C. H. N., of Pa.," says: "As there is much difference, no doubt, in different men, as to the way they find the circumference of a fifth-wheel, he would like to find a rule for the different sizes, and the proper sized iron to be used in making them."

THE POLICY OF MECHANICAL FAIRS.

We do not believe there is a class of people in this ambitious world more easily gulled than the Americans. Of this failing on our part there are always found some persons who stand ready to take advantage. No sooner does an opportunity present itself than these harpies in human form, who prey upon the community, are found buzzing about our ears as thick as gnats in autumn, and they are a great deal more annoying and dangerous.

These are the "big-bugs," who, with loud professions of friendship for the mechanic, and a desire for his welfare, eat the bread obtained by his sweat, and float along the surface of a flood created by draining his life's blood. *Their* "disinterested benevolence" always appears to be urging them on to getting up Crystal Palace shows, State agricultural fairs, or some other "humbug," which end in putting money in some drone's purse at the expense of the working class.

If such are not the facts, we should like to be convinced to the contrary, and we should like to find the mechanic

who was ever benefited by his thankless hours of toil in producing something nice for somebody else's show. We should look upon him as a *rara avis* worthy of the attention of some Barnum.

The above reflections have forced themselves upon us, in view of some things which have lately transpired in this city. For about thirty years there has been in existence an "Institution," which, in its attempt *to benefit* the public last October, turned the "cunning work" of industrious hands, to the amount of about $158,000, into ashes! As with most "institutions" of this kind, nobody was responsible for the losses on that occasion, and the exhibitors (among whom, fortunately, we are *not* numbered) will have to bear their losses with the best possible grace.

After the destruction of the Crystal Palace by fire in October, a call was made through the newspapers, in answer to which a precious few one evening met in the Cooper Institute, and organized themselves into an "institution," taking to themselves the designation of the "American Union of Inventors," a very comprehensible title, certainly, for the purpose of getting up another show. Having hired premises at No. 620 Broadway, their *first* Annual Fair was opened to the public on the 6th of Dec. To this Fair inventors had been invited from every section of the country, to bring along with them models, machines, etc., for competition, as well as to put money in *somebody's* pockets, under the direction of Mr. J. L. Riker. The first start, judging from the noise made at the time, was calculated to lead the dear public to conclude, that "some things *were being done*, as well as others." Supposing such *might* be the case, one evening, about a month since, we put our head inside of the Union's quarters, and had one of the finest views of empty space we ever saw, with more managers than visitors.

The look inside reminded us of the interior of a mock-auction shop in Chatham st. or Broadway, where, during the day the attention of *the audience* is more often directed to the street door, than anywhere else, in order to see what effect the glitter of a gold-washed watch might have in decoying into their den a green countryman. The mode of doing business at "the Union" has since been well illustrated in the case of the coal-dealer who was so unfortunate as to have received their order for his black diamonds. When the coal-dealer's agent called for payment of a bill against the "Union," he was coolly told that Mayor Tiemann, or some other of the leaders of the Board of Managers would pay it. It appears that at one time one of the receipts, signed on the delivery of the coal, was only signed with the letter "R," and when, afterwards, the agent called at the "Union" rooms to get the name in full, as desired by Mr. Thorpe, the dealer, he was told, by some one of the professed "Board," that R. stood for Rogers, and then Rogers was requested to sign the bill, which he refused to do, because he said he did not wish to become responsible for the bill. It has been shown that two persons, whose names commenced with an R., were connected with the Union.

A cotemporary says that none of the alleged Directors offered to give personal promissory notes for the amount of the bill; but the agent believed they agreed to become surety for the sum. He was told by Mr. Solomon that the Union's rent was paid up until the first of February. Solomon said he was at first mistaken, and that it was not paid. The agent could not say that Mayor Tiemann had been represented to have stock in the Union, by Mr. Riker.

Mayor Tiemann was the next witness called. He said he never was a member of the American Union of Inventors; never met with, or was connected with, the managers in any way; a committee at one time called on him, and stated that he had been elected President of the Association, and he told them that he could not attend to the duty, and that they must get some one else to take the position; the only time his name had ever been associated with the Union, was on the occasion of their preliminary meeting at the Cooper Institute, about the 5th or 12th of October; he signed a circular in behalf of the Institution, but it was only for publication, and to endorse the resolutions passed at the primary meeting; he remembered, distinctly, telling the committee, when they waited upon him in regard to his election to the Presidency of the Union, that he would not act with them.

J. B. Davidson, on being called, stated that at one time he was engaged as clerk in the employ of the American Union, and was present at several meetings of the Board, subsequent to October, 1858; he also remembered seeing a letter sent to the Board, by Horace Greeley, declining to become a member of the Union; Mr. Riker, Mr. Winfield, Mr. Wheeler, and Mr. Kenney were present at the time; did not see Mr. Rogers at any of the meetings; thought he was not at that time a member; never saw Peter Cooper, George Law, or Mayor Tiemann at any of the meetings of the Board.

The result of this matter is that the parties have been held to bail for fraud, and we hope that for the benefit of artisans they will now get such an insight into the internal workings of these institutions as will open the eyes of the community. This suit has also established the fact, which we have for some time suspected, that this so-called "Union of Inventors" is nothing more than a mockery of the name, got up to put money in the directors' pockets, which having failed of having done in the "regular" way, they have resorted to a still more objectionable method to effect the same object. We hope this last specimen of "shows" will open the eyes of the mechanic to his best interests, which is to keep the product of his

skill at home for the benefit of *his own* customers, and let these lazy drones, yeleped directors, go to work and earn their living by the sweat of their brows, and thus *become producers as well as consumers.* We have too many in our large cities already who always are making loud professions of being patrons of the Arts, whose real zeal for our welfare, when dissected, will be found to be in accordance with the wants of their pockets.

Latterly, we find two "Institutions" engaged in the business of getting the site of the old Crystal Palace whereon to erect another great show-room ostensibly "for the promotion of art," but really for the advancement of self-interests. We hope that, before the monopoly is granted, a committee of inquiry will be appointed to report to the public wherein these "institutions" have ever benefited the mechanic, if such can be shown. As we stated before, we do not believe any person outside of these "Unions" was ever benefited by their institution. They merely serve as fly-traps to catch the unwary, and *to feather the nests of those immediately concerned.* The same feeling, that led us, in another instance,—to speak out a decided opposition to humbug in any shape, has prompted the above remarks.

TO THE CRAFT EVERYWHERE.

KIND FRIENDS:—Two more monthly numbers will finish the first volume of THE NEW YORK COACH-MAKER'S MAGAZINE, with the publication of which, on the 1st day of May next, we shall give a handsome title-page and copious index of contents, making it, when bound, a convenient book of reference for the coachmaker's office, and, as we trust, not unworthy of a place on the centre-table in the parlors of the homes of the craft. To say that this enterprise has exceeded in success our most sanguine expectations, would only be to reiterate what we have before said. To say that the second volume has every prospect of being still more successful, is declaring our most sincere convictions. The Magazine, where it has been introduced, has met with warm favor and cordial support.

We take occasion in this place to assure the friends of this work that we are truly grateful for the encouragement and liberal support heretofore bestowed upon our humble efforts, and to assure them of our determination, with energy and unwearied study, to make it still more valuable in point of utility, and, if possible, in their own estimation. We aim at an honorable independence in conducting this work, and, probably, in a few instances, some one of our numerous readers may have been offended at our freedom. Editors, like other men, are merely human beings, and subject to the failings of human nature. Taking this view of matters, we submit ourselves to the mercy of the craft, hoping that they will give us a second trial.

We have, at the present time, about 800 complete sets of this work from the commencement, and will take great pleasure in supplying them to our fellow-craftsmen, either through the agencies of postmasters, or otherwise. The work is not stereotyped, and, therefore, it will be necessary for those who intend to have it (and which the stringency in the money-market has heretofore prevented), to send in their orders without delay. The work, being a standard one, will not be sold any lower than three dollars for a single volume, and we have little doubt that the few volumes now on hand will soon be taken up. Those who would not be disappointed in having a complete set will therefore see the necessity of bestirring themselves.

Before leaving this subject, allow us to make a few remarks pertinent to what we have already done, and intend to do. Our chapters on the History of Coach-making are intended to supply a need never before undertaken. We are anxious to make it complete. With patient research, and the material in our possession, we hope to succeed. We have now arrived at a period in that history of the deepest interest, and, to do it justice, *must* extend it into a second volume. Again, the series of articles on Carriage Architecture and Scale Drafting were, after discouraging attempts, commenced—after repeated clamorings for them—at so late a period in our first volume, that we cannot possibly do them justice without their continuation into the second. All these articles are correct and faithful; and the series have met with universal approval, except the square-rule, and that has merely met with opposition from a few, who, like the shrine-makers at Ephesus, considered their craft to be in danger. To say that our Magazine is the only work where it has yet been correctly given, is asserting the truth. It has cost us a heavy sum; but we look to the liberal portion of the craft to re-imburse us for the expenses we have been at, for the benefit of the many.

No one can be more opposed to continued articles from one volume into another than the Editor; but, as it seems to be forced upon us in this instance, we are certain our gentle readers will pardon us *in the fault*, if it be a fault, and, by their united efforts in enlarging the number of our subscribers, help us towards "reform" in the future.

The Magazine, thus far, has paid its way; but the Editor has, as yet, received little else than *glory* for his labor, hoping to gather a harvest of something more substantial in the future. Without extending our remarks here, we shall present our readers with a Prospectus of our Second Volume, in the April number, which, when it is presented, we commend to the attention of the craft.

TRAVELING AGENTS.

MR. H. H. WRIGHT, late of Watertown, N. J., is making a tour of the western part of the State of New York this month, and may extend his journey into Canada as an authorized agent of this work. MR. L. W. TRUE, of Tenn., we hope, will visit our Southern friends in the course of a

few weeks. Both these gentlemen will be provided with the properly authorized papers. All who pretend to be traveling agents, and cannot produce, over our signature, such papers, may be set down as impostors.

"A wandering vagabond, of 'softest tongue and smoothest visage,' has been fleecing" the Canadians by his pretended agency for American publications. He will likely try his luck with our Magazine. He glories, according to his letter to us, in the name of "T. Duff McDonald." The public will beware of him, and see that all agents, representing themselves as employed by us, have the "documents" in proof of their pretensions.

A NEW PATENT WHEEL IN THE FIELD,

About a hundred sets of which, the inventor informs us, have been thoroughly tested, some of which have been running on the very lightest class of work nearly two years. These wheels are designed for first-class work. The basis is a wood hub, and the combination such, that a much smaller hub can be used than in the old style. The inventor informs us that some of the first-class and most extensive builders in Connecticut have purchased the right to build and use his wheel, and that most of the first-class builders in New York have ordered test-sets; and he wishes us to inform them through our columns that the wheels will be forthcoming as soon as they are finished, and that the cause of delay is not for want of attention on his part. A full advertisement is promised for the April number of this work.

BUSINESS PROSPECTS.

It gives us much pleasure to say that there are indications of improvement in business for the craft. Our correspondents, East, West, and South, with little exception, write us that the present time is full of encouragement. The capital which has slept during the winter must be invested in something—according to the ambition of its possessor—in the spring, and the public, generally, having gotten over their fright, will go to work again in good earnest. Business having revived, the people *will* ride, and if they will ride, we *must* make them pay for the pleasure of riding. So mote it be.

☞ From the letter of a correspondent, published in the *Journal of Industry*, dated Evansville, Indiana, January 11th, 1859, we learn that a wagon-maker, who will go on and hang out his shingle in that place, can have a house and ten acres of land free of rent for five years. Some poor fellow, who now wishes to be happy for the next five years, has only to subscribe to this Magazine, and accept the offer above made, and "live in clover" for a while at least.

From the same source we learn, that, although there is but little to do, wagon-makers get, in Waverly, Mo., $15 per week; in Albion, Ill., $18, and in Evansville, Ind., $9. We should like to hear from the two first-named places, as we are disposed to think that "wages there are represented too good to be true."

We learn from a letter, dated Shelbyville, Tennessee, January 17th, 1859, that "business is looking up again" in that place—that they have a great many calls for carriages, and that "it is thought that business will be as good this year as at any time heretofore."

☞ Mr. L. W. True, of Tenn., himself a carriage-trimmer, in connection with two other gentlemen, has invented and patented what they call a Portable Chair, with an improved spring cushion, adapted to carriages of every description. We judge that it must be something entirely original, since Mr. Southgate, the parties' solicitor, has declared, that "this invention embraced the largest base for a patent he had ever seen," notwithstanding his long connection with the Patent Office. We hope to be able to present it in detail, with suitable illustrations, in our April number.

Carriages in the California Market.—A correspondent at San Francisco sends us *The Mercantile Gazette and Shipping Register*, of January 4th, 1859, from which we glean the following items: "Wagons and carriages of the most substantial character are extensively manufactured in all parts of the State.

"The wages of Carriage-makers is from		$3	to	$5	per day
"	" Painters	35	to	45	pr. mo.
"	" Blacksmiths	4	to	5	per day
"	" " helpers	2.50	to	3	"
"	" Wheelwrights	4	to	5	"

"About 50 carriages and wagons had been exported from San Francisco to Victoria and the British Colonies the past year."

From the same source we learn that the manufacturing enterprises of California are steadily increasing in number, and variety, and that the time is not far distant when most articles of manufacture will be produced by home labor and capital. An irregular and reckless system of importation has heretofore materially interfered with the profits of manufacturers, but the permanent establishment of manufacturing facilities is expected to soon remedy this difficulty.

New Steam Carriage.—Col. Hoe, of New York, the inventor of the celebrated type revolving printing press, says the *Baltimore Sun*, is about to construct a carriage to travel over any turnpike or good country road, and to be propelled by steam. The first is intended for himself to ride out and in between his place of business and his country seat, about twelve miles from the city of New York. It is expected that the carriage and propelling power will not cost more than a good pair of horses and coach, and travel over a fair road at the rate of two-thirty per mile.

FAMILIAR LETTERS FROM THE CRAFT.

SOUTH DEERFIELD, MASS., Feb. 4th, 1859.

MR. EDITOR: *Dear Sir*—I noticed, in the Jan. number of your Magazine, an article from B. & C., in reference to the way in which spokes should be made—whether the heart or sap should be in front—the answer to which I beg leave to differ from. Though some of the reasons given are good, yet, from my experience in heavy lumber work, I am compelled to decide in favor of putting the heart in front. My opinion may not be correct; but, in order to draw out others of the craft, who may have had more experience in heavy draught wagons than myself, and who, perhaps, have spent no time in theorizing upon the subject, yet have found, from personal examination of old and broken-down team-wagons, which continually come to them for repairs, where and in what particular point the spokes have failed first. I am not as old as Methuselah was, nor as young as twenty years ago, but, from the experience I have had within that time, in the carriage business, I am satisfied that, if there must be any sap used in spokes, it should be on the back side, rather than in front, more especially in lumber-wagons, and where oak spokes are used. I have noticed in all the heavy team-wagons, both one and two horses, and in three-fourths, at least, of the light work which has come to me for repairs, and where no accidents have happened, but simply the natural wear and tear, that where spokes have failed, unless broken at the hub or felloe (which is the case where poor timber is used), all have broken in front, and, generally, across the spoke, and within three or four inches of the hub; but I have seldom, if ever, seen a spoke broken off at the back side. I shall not attempt to explain the philosophy of what I assert as fact in this letter, but, as I consider it an important item in getting up wheels, especially for heavy work, I merely throw down the gauntlet for others to take up, that by this means well-established facts, which can be relied upon, may be brought to light, and each may profit by the experiments of others. Yours, truly,

A SUBSCRIBER.

RALEIGH, N. C., February 7th, 1859.

FRIEND STRATTON:—*Dear Sir*—The Raleigh correspondent has no remarks, or reply to make to the communication from Mr. T. F. Bain, from Stantonsburg. He will not even condescend to engage in a war of words with a person who substitutes vituperation for argument, and low epithets for that respectful language which we expect from a fellow-craftsman. He has no respect for Mr. Bain, and no disposition even to think of him. He will not be at the emotional *expense* even of conceiving and entertaining contempt for the correspondent from Stantonsburg. As you have remarked, "personal abuse is neither argument nor reason," and, as in another of your sayings, I think, "Respect for everybody is the best policy," I will, therefore, drop this correspondence, and sign myself yours, in forwarding *our* cause, B. H. H.

The following letter and poetry were not intended for publication, or, perhaps, the author would not have laid it on for our friend Newhall quite so thick. The "admiration" of our correspondent's prose is so completely buried in enthusiasm by his "lines" that a little allowance, perhaps, ought to be made for imagination. Hoping that the "large orders" of our New Haven friend will not awaken jealousy among the craft in that *village*, we shall let our friend B. S. L. now take the stand.

BRIDGEPORT, Conn., Feb. 10th, 1859.

FRIEND STRATTON: * * * I think there is that good time coming again, when every jour. will have plenty of work, and appreciate it by subscribing for your valuable Magazine. I was in New Haven last week; there they are driving things up to the handle; particularly at Cook's and Newhall's. After viewing these mammoth establishments, the question comes up, Where do all these vehicles go to? I am told that over 125 carriages are turned out weekly in that city alone, and still they are far behind in filling their orders on light work. I have often thought to myself, there must be a heavy stock of buggies South, and, on a visit through the South, I attempted to find out what *did* become of them. In answer to my inquiries from an old dealer, he stated to me that they always traded the worn-out buggies, and kept them on the move until there was nothing left of them, and that was the reason they did not accumulate—very satisfactory, decidedly. I inclose to you the reflections I had on my return home, after spending half a day through Newhall's shop.

LINES

Suggested by a visit to the extensive Buggy Factory of George T. Newhall, Esq., New Haven, Conn.

Tune—"YANKEE DOODLE."

Of all the wonders ever penned,
Performed by aid of steam,
We lately in New Haven saw
What "took at once the cream!"

The visit which we lately made
To that renowned city
Shall be the burden of our theme,
And Newhall's crown the ditty.

Two hundred men—say, more or less—
And girls were working there;
While each performed with skill his part,
With neatness and with care.

Some thirty buggies every week
From out these shops they turn,
And still large orders are behind—
At least so we did learn!

One building, some four stories high,
In length two hundred feet,
With numerous other shops about,
Extend from street to street.

The hubs and spokes within this shop
Were the best we ever saw—
No damaged timber lay around—
'Twas free from check and flaw.

A critic's eye was on the work,
As every part was made,
Which proves the workmen here employed
Are masters of their trade.

The painting—that is done with skill—
The ironing—quite strong;
Each spring and axle tested is,
That nothing may go wrong.

The stock they use throughout this shop
Was found all Simon Pure;
A hint we hope the craft will take,
And strive some faults to cure.

A style of buggy here is made
Well suited for all climes—
And, should you want an order filled,
You'd better speak betimes.

Of seventeen different styles of work
We on his chart descry—
The fame of all has spread so wide,
That all who call will buy.

But "time is up"—once more the cars
We find, and take our station—
To Newhall's factory bid farewell,
Quite filled with admiration!

B. S. L.

THE VOICE OF THE CRAFT—EXTRACTS FROM LETTERS.

We have thought best to give the following extracts, from a few of the many letters received at this office, to show to our readers the favor with which our enterprise is greeted. They are the voluntary testimonies of individuals, total strangers to us, and, therefore, are not to be looked upon as "cut and dried" for the occasion.

Bridgewater, Mass., Jan. 1st, 1859.

Mr. Editor:—I like your Coachmaker's Magazine, it is needed, and doing good. I like its outspoken, fearless tone, although I may not agree with it in every respect. I hope your life will be spared to carry forward the enterprise which you have so auspiciously commenced. I shall do what I can for the Magazine. I am located so far away from other carriage-makers that I shall have to remain a single subscriber, although I have recommended it to others.

Yours, truly, B. D.

Cincinnati, O., Jan. 20th, 1859.

Mr. Stratton: *Sir*—I am very well pleased with the Magazine, and would not be without it. I do not know of any mechanical magazine that is equal to it, either in mechanics, literature, or the style in which it is gotten up. I subscribed for S————'s Magazine, when it was first issued; I did not like it, but, judging of the difficulties that a new Magazine (and especially a mechanical one) had to encounter, I subscribed for it the second and third year, hoping that it would improve; but it was almost hoping against hope—it contained very little else than promises.

When you first issued your Magazine, I concluded to wait, and see whether you kept your promises—you have more than fulfilled them. If that Columbus humbug had never been in existence, you would have five subscribers here [in Cincinnati] to where you have one. I have made several attempts to get up a club, but am almost always met with the remark: "that's another humbug."

Yours, &c., W. B. S.

New Haven, Conn., Jan. 29th, 1859.

E. M. Stratton, Esq.: *Dear Sir*—* * * * Your Magazine is fully of as much importance to the operatives in a carriage manufactory as Godey's "Ladies' Book" is to the ladies; for both must be consulted for the latest and best fashions in either case. Please forward, to our care, the copies of the "New York Coach-maker's Monthly," as heretofore, as soon as issued, and oblige,

Respectfully yours, J. D. & Son.

MISCELLANY.

The Jarvey and his Fare.—Mr.—— is a man of alder-manic proportions. He chartered an outside car t'other day, and drove to the Dublin post-office. On arriving, he tendered the driver sixpence, which was strictly the fare, though but scant remuneration for the distance. The jarvey saw at a glance the small coin, but instead of taking the money he busied himself in putting up the steps of the vehicle; and then going to the well, at the back of the car, took thence a piece of carpeting, from which he shook the dust, and straightway covered his horse's head with it. After doing so he took the "fare" from the passenger, who inquired, "Why did you cover the horse's head?" To which the jarvey replied, "Because I didn't want to let the dacent baste see that he carried so big a load so far for sixpence!" It should be added, in justice to the worthy citizen, that a half-crown immediately rewarded the witty jarvey for his ready joke.

Carriages from Victoria.—Among the imports into San Francisco from Victoria, from Aug. 18th to Dec. 3d, we notice 2 carriages, 14 buggies and 1 wagon. What we wish to know is—have her Majesty's subjects set up as our rivals in the California market, or are these vehicles the property of disappointed returning gold-diggers bringing back what they took away to use?

Express Wagons drawn by Fleas!—Professor—— has on exhibition, in Broadway, New York, an express wagon to which he harnesses his "industrious fleas." A wag suggests that he drive them up to the Comptroller's office and carry off the well-filled bags stored there. This bit of sarcasm might have been well put, had the suggestion been earlier made; but by this time, we think, it would be difficult to find even a flea-load of city "deposits" remaining in the Hall of Records. *Fleas* stand a poor chance for spoils among *rats*.

For the New York Coach-maker's Magazine.

ON SCALE DRAFTING AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, OF BRIDGEPORT, CONN.

(*Continued from page* 159.)

LESSON SIXTH.

This carriage, as you see it completed, makes a very neat summer phæton, much of its beauty depending on the manner in which it is finished and ornamented. You must, however, exercise your own taste and judgment on the ornamental part. The manner of showing imitation cane is, to first draw the perpendicular lines parallel to each other the length of the quarter, then the horizontal lines, and they, diagonally-crossed both ways, will give it on a small scale, as near as can be expected. The space under the cane work is intended to be open. Some would prefer this carriage without doors. It can be arranged either way.

LIFE SKETCHES.

SCENE THIRD.

IT will be seen, in glancing at our illustration, that *Master Billy's* indiscretions have produced a plentiful harvest of troubles. His present condition reminds us of the case of an ex-editor, who, during *his* tide of success, gave "promises" of great things. In an evil moment, alas, he allowed his *excesses* to change his open sea navigation into salt river coasting, until, in June last, *the bottom of his craft fell out*—the result of his recklessness in running against snags. "*Sich is life.*"

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME AND ABROAD.

AMERICAN PATENTED INVENTIONS.

January 11.–MODE OF ATTACHING THILLS TO AXLES.–George Kenny of Milford, N. H., assignor to himself and Josephus Baldwin, of Nashua, N. H.: I do not claim encompassing the bolts, D, in elastic tubes, irrespective of the particular arrangement shown and described. But, I claim the combination of the pressing and locking India rubber tube, E, with the eyes, A A B, and bolt, D, with its nut, E, substantially in the manner and for the purposes described.

January 18.—SPOKE MACHINE.—L. J. Dickason and John Frazee, of Georgetown, Ohio: We claim, first, the described mode of operating the cutter frame, J, with its cutters, K, and also the emery wheel, h, and its frame, L, so as to throw them all clear of the spoke, S, after the operation of turning and smoothing, that is to say, we claim the employment of the two arms, R R, "upon the shaft, R, operated by means of a hand-lever, R," in the manner and for the purposes set forth.

Second, we claim the adjustable spring rests, "N N," when arranged and operating in the manner and for the purposes set forth.

Third, we claim the spring arm, N; spring catch, M; pitman, n; and bent lever, n, in combination with the lever K, clutch, I, and rod L, all arranged and operating so as to throw the pulley wheel, H, in and out of gear with the shaft, G, substantially in the manner and for the purposes set forth.

RECENT EUROPEAN PATENTED INVENTIONS.

August 21.—George J. Walker, Norton Folgate—Improvements in funeral carriages.

August 27.—John Fowler, jun., Cornhill, and Robert Burton, Kingsland Road.—Improvements in the construction and arrangement of locomotive and other carriages, to facilitate their movement on common roads and other surfaces.

September 1.—William E. Newton, 66 Chancery Lane—Improvements in springs for carriages and other purposes.

September 4.—Hiram Hyde, Truro, Nova Scotia—Improvements in the construction of carriage-springs.

September 9.—John G. Newberry, Cardiff, Glamorganshire—An improved machine for tapping nuts, bolts, and screws, and other similar purposes.

September 22.—Thomas Howe, Millwall, Poplar—Improvements in smiths' forges.

October 2.—Bernhard Samuelson, Banbury—Improvements in the wheels of carts and other carriages to be used on common roads.

October 6.—Christopher Hill, Great Western Railway, Chippenham Station—Improvements in omnibuses and in apparatus for upholding windows of omnibuses and other carriages.

October 7.—Charles H. Thurnham, Dalston—Improvements in the construction and application of certain mechanical arrangements to be adapted to the wheels of locomotives, carriages, and other vehicles for facilitating their traction or draught.

Largest Bending Establishment in the U. States.

ISAAC B. KILBURN,

(Formerly Bedford, Crane & Co.,)

MANUFACTURER OF

Carriage Bows, Bent Felloes, Shafts, Poles

And all kinds of Bent Carriage and Sleigh Timber,

Nos. 54, 56 & 58 Mechanic Street, Newark, N. J.

The manufacturer, being himself a practical Carriage Maker, feels that he is well qualified to give general satisfaction to both Dealers and Manufacturers who may favor him with any order for articles in his line.

London, 33 Dowgate Hill. Paris, 15 Rue Chapon.

JOSEPH KOHNSTAMM,

MANUFACTURER OF ULTRAMARINE,

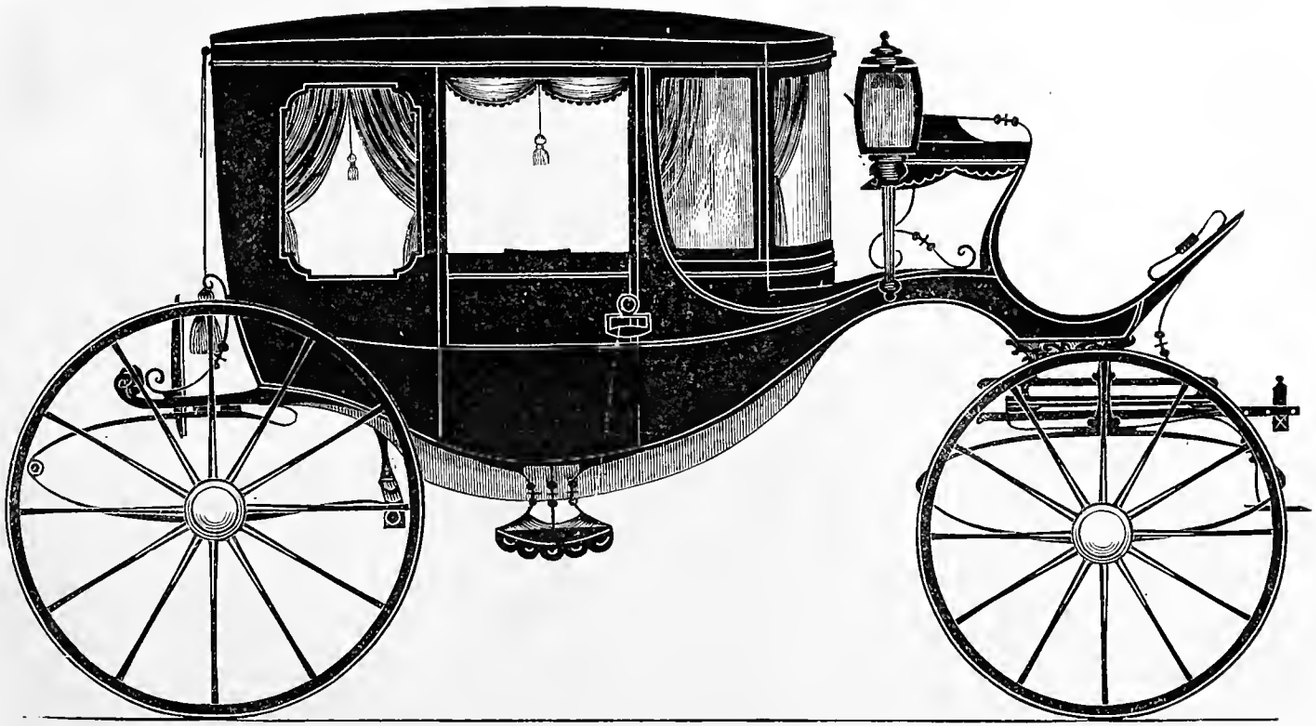
AND IMPORTER OF

ENGLISH AND FRENCH PAINTS,

Artists' Colors and English Varnishes,

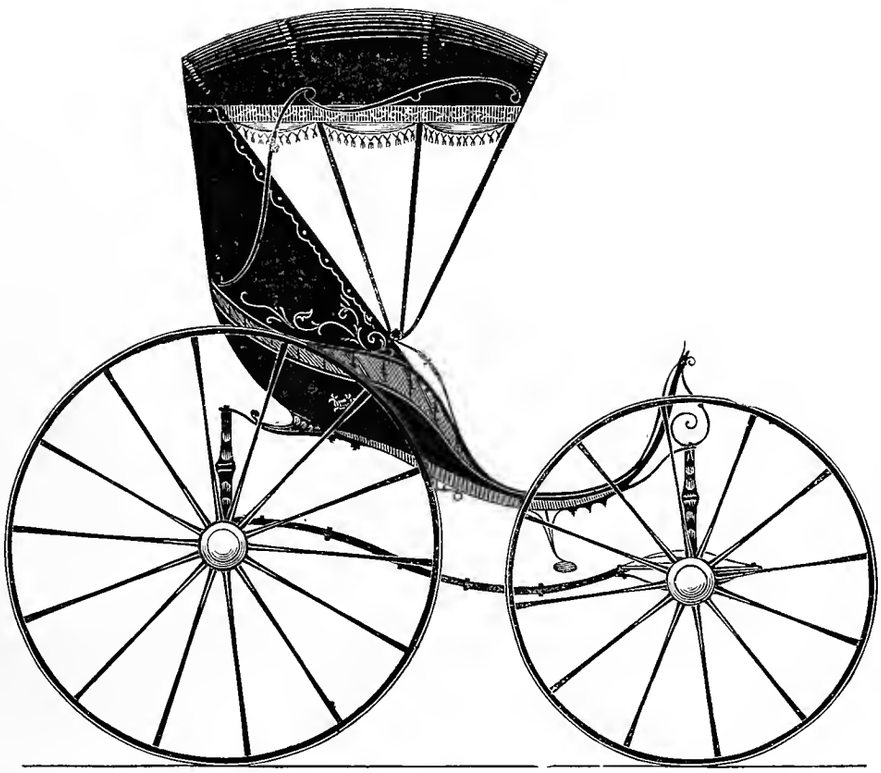
No. 3 Tryon Row, City Hall Square,

NEW YORK.



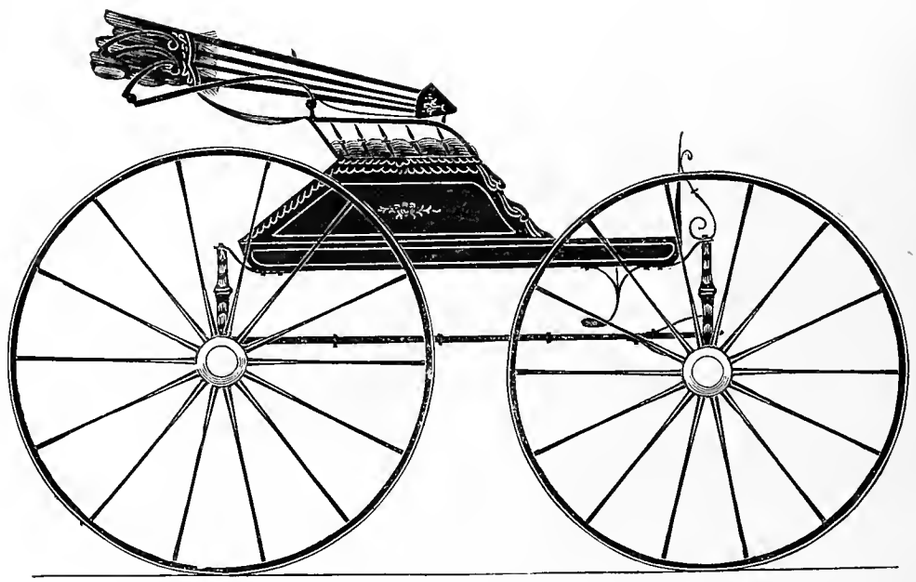
CLARENCE COACH.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 211.



QUEEN CITY PHÆTON.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 211.



THE TALLMADGE BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 211.

STITCHING PLATE D, FOR APRIL.

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, APRIL, 1859. No. 11.

The Coach-Maker's Portrait Gallery.

For the New York Coach-maker's Magazine.

BIOGRAPHY OF WM. D. ROGERS, ESQ.

(*Concluded from page* 183.)

Mr. Rogers was now twenty-seven years of age, though much younger in appearance, and, judging from this, many predicted the certain failure of his undertaking an enterprise, for which a large amount of experience was known to be necessary. These surmises, of course, sprang from a total ignorance of the man, as the very quality in which they judged him to be deficient he possessed to a greater extent than any other coach-maker in Philadelphia, of twice his years. His several journeys among strangers, throwing him constantly upon his own resources, secured to him the fullest training of those moral and mental characteristics which find their highest use in surmounting difficulties, and which qualities, it may here be stated, are possessed by few persons in a higher degree than we find them developed in the character of Mr. Rogers. One disadvantage, it is true, was consequent upon his long absence from Philadelphia; he was comparatively friendless and unknown in the city where he now expected to build up a business. It is said by himself that, the day he opened his shop, there was not a man in Philadelphia from whom he could solicit one dollar's worth of work on the score of acquaintance. Yet, this very disadvantage was more than made up by the knowledge he had gained in making this sacrifice. He had not only learned men in his travels, but he had studied the character of the country, and especially the roads, with the view of understanding the character of wheels best adapted to the different localities he visited.

As might be inferred, however, this knowledge could not be made available at the start, and accordingly the first year's experiment was one of more trial than remuneration. But the first year's seed had not been sown in vain. The character of his work, in point of style, finish, and durability, was so entirely satisfactory, that orders began to pour in from all sides, so that the following spring he found it necessary to employ thirty hands. During the second year, he received orders from several persons of distinction and influence, which had the effect of bringing his work more prominently before the public, the result of which was that, at the close of the second year, his work afforded steady employment to forty-five hands. From time to time he found it necessary to enlarge his facilities for manufacturing, until, after remaining in his first quarters six years, and finding that large additional expenditures on the premises were necessary to afford working room for his operatives—which, in view of the restriction in Girard's will, not to lease any portion of his estate for a longer term than five years—he availed himself of a spacious lot in the northern part of the city, bounded, on three sides, by Sixth, Marshall and Master streets, upon which he erected an immense brick factory, forty feet by one hundred and seventy-two feet, and four stories high. The lot on which it stands has two fronts, of 137 feet each, one on Sixth and one on Marshall street, and a front of 172 feet on Master street. In addition to the main building, the lot is occupied by a wheel shop, a silver-plating shop, an iron room, lumber sheds, two dwellings on Marshall street—one for the foreman, and one for the watchman—the whole forming a hollow square for the display of carriages, receiving materials, etc., and when finished was considered the model coach factory of the Union.

In perfect keeping with Mr. Rogers' uniform style of *going ahead* with what he undertakes, this vast building, constructed in the most complete manner from cupola to foundation—together with all the other buildings named—was finished in thirteen weeks from the date of its commencement, and in the Spring of 1854 one hundred hands were employed in the establishment.

Notwithstanding the extraordinary facilities Mr. Rogers now possessed for producing an immense amount of work, he, from this time forward, confined his operations entirely to building vehicles to order for consumers, making nothing but the finest quality of work; yet so steady was the increase in the demand for his carriages, that the number of operatives last named had to be enlarged from time to time. In the estimation of his friends, the splendid new quarters in which he was now established were thought to cap the climax of this prince of carriage-builders' ambition, and of a man possessing an ordinary degree of enterprise this judgment might have been correct, but not so of our subject.

In Mr. Edwin T. Freedley's new work on "Philadelphia and its Manufactures"—the most complete and accurate book on this subject ever published—is contained an interesting article, entitled, "Rogers' Carriage Manufactory," describing the factory above referred to, from which we take the liberty of extracting the following introductory comments:

"With the exception of two or three noted establishments, our attention in our tour of observation around the city was invited to none other more frequently than to that which forms the caption of this article. Even in a brass-founder's shop, we were reminded 'not to forget the superiority of the light carriages constructed in Philadelphia—that Rogers builds as good vehicles as are built in the world;' and that he deserves special credit, for by the excellence of his manufactures he reflects credit upon the city. Attending Herkness' Auction Sale of Carriages, we noticed that, whenever a second-hand 'Rogers wagon' was offered, the attention of the bystanders was awakened, bidding became lively, and the price obtained was evidently satisfactory to the seller. We then recollected of having read that a light carriage, constructed by Mr. Rogers to order, for a gentleman in Switzerland, was regarded, from its extraordinary lightness and strength, as so great a curiosity that, the owner having left it for a day at a hotel, a few miles from Zurich, the hostler exhibited it during his absence, at a stipulated charge for a 'sight,' and thus made more money in one day than his wages amounted to in six months. All these circumstances combined—the complimentary allusions to his standing as a gentleman by his fellow mechanics, excited a strong desire to know something of his manufacturing facilities, and the following is the report of a gentleman who was specially employed to describe them: In consequence of its necessary length, we omit the report, at the close of which we find the following: 'Mr. Rogers is also building several light buggies to order, for gentlemen in Austria; and no doubt but many of these will be driven on the Prator at Vienna ere this year closes.'"

But we have intimated that Mr. Rogers' goal of ambition had not been reached even in the attractive quarters above referred to. In the summer of 1857 we find him erecting a splendid Repository, forty-six feet by one hundred and seventy-eight feet, on Chestnut street above Tenth, right in the heart of the city, on the most fashionable thoroughfare. Those who have not seen it may be at a loss to appreciate the taste and appropriateness of introducing a carriage house in the midst of splendid saloons, dry goods palaces, and jewelry establishments such as mark Chestnut street in that vicinity; yet, when we say that of all the attractive store rooms here named there are none more imposing and picturesque in their appearance to passing pedestrians than this Carriage Repository of Mr. Rogers, we are but stating a daily admited fact.

The external appearance of this edifice is chaste and symmetrical, and the interior, being so constructed as to display at once two stories of elegantly finished vehicles, presents a very beautiful, although novel, scene.

The upper part of this spacious building has the honor of being occupied by the library, reading and committee rooms of the Philadelphia Young Men's Christian Association. In the rear of the show room are shops fitted up for repairing purposes. Taking this Repository and the immense factory at Sixth and Master streets, we have presented one of the most extensive and commodious establishments of the kind in this country.

It is not a little remarkable that Mr. Rogers has built carriages to order to go to every State in the Union, as also to the West Indies, South America, and various parts of Europe. The superiority of his work has been flatteringly attested wherever it has appeared. Medals have been showered upon him by public institutions, and from every section he has received, what is even more valuable, the encomiums of the Press. Yet, in the face of all this laudation and success, he is, in manners and social qualities, as the writer is happy to know, the same William D. Rogers he was when a traveling journeyman thirteen years ago.

Did space permit, we should be glad to refer especially to some few specimens of his workmanship that have created the most sensation abroad. One of his light carriages, built to order and sent to Southampton, England, for the late General Welsh, attracted much attention, on account of its extreme lightness and beautiful proportions. This vehicle was examined by the Earl of Derby and several other notables, as also by Mr. Andrews, mayor of Southampton, who declared it to be the finest specimen of carriage building he had ever seen, which, considering that the mayor had himself been a practical carriage-builder, was a substantial compliment.

The most expensive thing in this line of manufactured articles, probably, ever executed in this country, was a magnificent hearse, built by Mr. Rogers, to the order of Messrs. Lynch, Arnot & Co., of St. Louis, at a cost of thirty-seven hundred and fifty dollars. The designs on this elaborately-finished carriage for the dead were entirely original, and, as may be inferred, the workmanship and stock employed in its production were of the very first order. The hearse, when completed, was exhibited in both Philadelphia and St. Louis, to thousands of persons. In perfect keeping with Mr. R.'s thorough way of transacting business, we may state that, when this expensive piece of workmanship was finished, he superintended personally its delivery to the owners in St. Louis.

The business habits of Mr. Rogers are thoroughly systematic, so that, although his manufacturing operations are of the most complex nature, the various processes progress with all the punctuality and precision of clock-work. One of the chief excellences of his mode of business is, that, with rare exceptions, every man in his employ knows his duty and performs it; a fact that is no less attributable to his respectful regard for the rights and feelings of those under him than to the stern discipline he has found it necessary to employ. In his dealings he is liberal, but just, and exercises a policy as opposite to "that which holds a sixpence so near the eye as not to be able to see a quarter at arm's length" as could well be imagined. By men who know him best, his word is regarded to be as good as his wagons, which is saying considerable. In short, there is nothing that commends him more highly, as a business man and a gentleman, than the fact that his warmest friends are among those who have dealt with him most and known him longest. G.

An ingenious down-easter has constructed a miniature factory village, with engines, wheels, windmills, carriages, *waterfalls*, persons walking, playing, swinging, &c., and the whole so delicately arranged and so nicely adjusted as to be put in complete operation by a single mouse! which travels in a small circular cage, as squirrels are often seen doing.

Miscellaneous Literature.

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER XI.

The "dark ages" of coach-making—Carriages and Civilization go hand-in-hand—The horse-litter originating in the South of Europe—Its employment confined to ladies—introduced into England in the thirteenth century.

Nec sum animi dubius, verbis ea vincere magnum
Quam sit, et angustis hunc addere rebus honorem.

Virgil's Geor., III., 289.

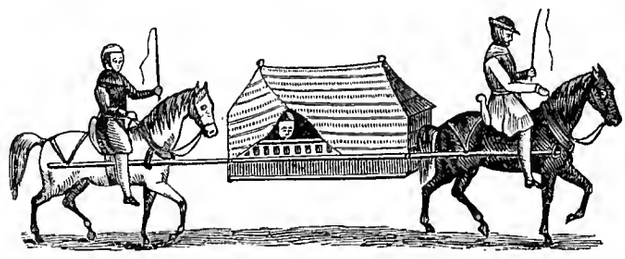
For many ages after Cæsar's invasion of Britain we hear but little about vehicles of any kind, except it be a rough kind of cart, used by our Saxon ancestors in their agricultural employments. These, according to the illuminated MSS. preserved in the British Museum, and other archives, were of rude construction enough, and fail in even maintaining a respectable link in the chain calculated to connect the vehicles of antiquity with those invented since the dawn of the seventeenth century. This period of some centuries may, with great propriety, be denominated a "dark age" in our history. The vehicles of every form, of which we have previously treated in these pages, would seem to have entirely disappeared beneath the heaps of barbarian rubbish and heathen ignorance and superstition which covered so large a portion of our globe. Therefore, however deeply we may regret the circumstances, we find we have almost been obliged to begin our history anew. It is true that the poets, referred to in our article on the third page of this volume, had lent their talents in maintaining the ideal chariot, but beyond that our emblem—rather, representative—of civilization had scarcely an existence.

If the reader would study the history of civilization—say from a point soon after the Flood—let him trace in our history of "Coach-making Historically Considered," thus far, its rise, progress and fall. Carriages and civilization seem to keep pace with each other under the same law as that which influences the quicksilver confined in a tubular glass to give indications of change in the weather. This is so apparent as to disarm any attempt at controversy on the subject, should any such be made. The horse, as in primitive times, was again the common mode of transportation for merchandise from place to place, as he could be employed where roads had not yet been opened. This state of affairs continued until the invention of the *Horse-litter*, represented in our engraving. For this litter we are indebted to the South of Europe, where it is still used in traversing mountain-ranges.

At their first introduction, the ladies seem to have monopolized the exclusive use of the litter, as described in the following passage from Froissart's Chronicles, where, in relating the triumphal entrance of Isabella of Bavaria into Paris, he says:

"On Sunday, the 20th day of June, in the year of our Lord 1399, there were such crowds of people in Paris it was marvelous to see them; and, on this Sunday, the noble ladies of France, who were to accompany the Queen, assembled in the afternoon at Saint Denis, with such of the nobility as were appointed to lead the litters of the Queen and her attendants. The citizens of Paris, to the number of twelve hundred, were mounted on horseback, dressed in uniforms of green and crimson, and lined each side of the road. Queen Joan and her daughter, the Duchess of Orleans, entered Paris first, about an hour after noon, in a covered litter, and, passing through the great street of St. Denis, went to the palace, where the King was waiting for them, and this day they went no further. The Queen of France, attended by the Duchess of Berry, the Duchess of Burgundy, the Duchess of Tonraine, the Duchess of Loraine, the Countess of Nevers, the Lady of Couey, with a crowd of other ladies, began the procession in open litters, most richly ornamented. The Duchess of Touraine was not in a litter, but, to display herself the more, was mounted on a palfrey, magnificently caparisoned.

"The litter of the Queen was led by the Dukes of Touraine and Bourbon, at the head; the Dukes of Berry and Burgundy were at the centre, and the Lord Peter de Navarre and the Count d'Ostrevant behind the litter, which was open and beautifully ornamented. The Duchess of Touraine followed on her palfrey, led by the Count de la Marche and the Count de Nevers, the whole advancing slowly, at a foot's pace. After her came the Duchess of Burgundy and her daughter, the Lady Margaret of Hainault, in an open litter, led by the Lord Henry de Bar and Sir William, the young Count de Namur. Then came the Duchess of Berry and the daughter of the Lord de Coucy, in an open and ornamented litter, led by Sir James de Bourbon and Sir Philip d'Artois. Then the Duchess of Bar and her daughter, led by Sir Charles d'Albret and the Lord de Coucy. There was no particular mention made of the other ladies and damsels who followed in covered chariots, or on palfreys, led by their knights. Sergeants and others of the King's officers had full employment, in making way for the processions, and keeping off the crowd, for there were such numbers assembled it seemed as if all the world had come thither."



Horse-litter of the time of Edward III.

So strongly had prejudice at this period taken possession of the public mind, that very few ladies could be found to relinquish riding on horseback for traveling in litters, although encouraged by the example of female royalty. It required almost three centuries to wholly eradicate these prejudices. As late as 1650 there were still to be seen in the streets of Paris the stone-benches placed there for the convenience of its citizens in mounting on horseback.

From the Continent we find the litter introduced into England. King John, in his last illness, was conveyed from the Abbey of Swinstead in *lectica equestre*. Afterwards, for several successive reigns, they were the only *carriages* employed by persons of distinction, and then only on state occasions. When Margaret, daughter of King Henry VIII., went into Scotland, she is described as journeying on a "faire palfrey," and after her was borne, by two footmen, "one vary riche litere, borne by two faire coursers vary nobly drest; in the wich litere the sayd queene was borne

in the intrying of the good townes, or otherwise to her good playsher."

At the coronation of Queen Catharine, wife of Henry VIII., Holinshed says, in his Chronicles: "Then came the queen in a litere of white cloth of golde, not covered nor bailed, which was led [carried] by two palfreys, clad in white damask doone to the ground, head and all, led by two footmen. Over her was borne a canopie of cloth of gold, with foure gilt staves and foure gilt bells; for the bearing of which canopie were appointed sixteen knights, foure to beare it one space on foot, and other foure another space."

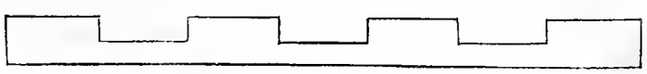
We have thus gone through the history of the litter, because we look upon it as the prototype of the more artistic carriage, and that our history would not be complete without it. Our next chapter will embrace a period in history fraught with the deepest interest, and one that commends itself to the study of the reader, as it will introduce the coach proper to his attention. S.

For the New York Coach-maker's Magazine.

ON THE PRESERVATION OF TIMBER.

BY A. DUXBURY, RAHWAY, N. J.

THE decay of wood is strictly a chemical change, and can only be properly understood by chemical investigation, which is not the purport of this letter. My object is to present the best practicable method of seasoning and preventing the decay of timber in the plank. The decay of woody fibre presents itself in two forms. The one is dry-rot, by which it is rendered brittle, and has its cohesion completely destroyed. The other form is when the decomposition takes place under the surface of water, where the air obtains access to the wood by the chemical changes of the water surrounding the wood, and where the water contains petrifying organic matter, pure water having the property of preserving wood an indefinite period of time. The general condition for the production of such decomposition *is contact with a body already undergoing a similar change*, and to prevent this contact I would recommend small cast-iron benches, about one foot, or less, high, to pile plank on, instead of placing old rotten plank at the bottom of a pile. It is of the first importance, in seasoning plank, that the air circulate freely from side to side, *and from end to end.* This cannot be where planks are piled tier adjoining tier, with the sides touching, and this must be done where room is an object, as in New York and other large cities. To obviate this difficulty, I would have the sticks that are placed between the plank, at proper distances, made as follows:—Have three-fourths of an inch strips sawed, with notches cut out, thus—



You will perceive by this method that the air can circulate from one end of the log to the other, and facilitate the seasoning in considerably less time than by the usual method. I hope this may be of sufficient interest to merit a reading by your intelligent subscribers.

LUBRICATING MACHINERY.—Castor oil is one of the best articles for wheel-grease. In its pure state it will last long, and operate most remarkably.

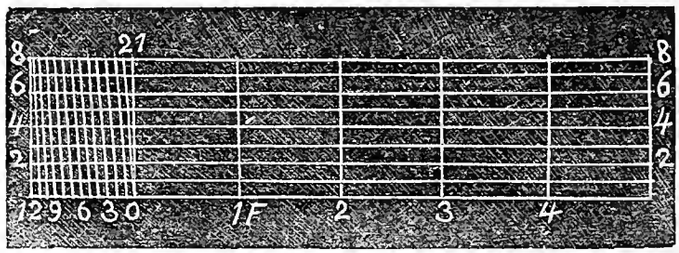
For the New York Coach-maker's Magazine.

THE DIAGONAL SCALE.

NEW HAVEN, Jan. 17, 1859.

MR. EDITOR: I have noticed in your valuable Magazine, October number of 1858, a "Scale Rule," given by your worthy and able draftsman, Mr. Joseph Irving, and it is a very good and simple rule as far as it goes; but, in my humble opinion, there will be some of those just commencing to draft—and for this class of the craft, I believe, it was designed more than for the older draftsman—who will find some difficulty to divide one of those inches into quarters or eighths. For this reason I had hoped Mr. Irving, or some other person, would contribute a different Scale Rule from the one above alluded to; but as there has none appeared yet, and as there will be more drafting going on among the craft these cold, long winter evenings than in the warm summer, I have concluded that this would be the best time for giving you a Diagonal Scale.

You will perceive, at first sight, that this is everything you want for a scale, because you can get your quarters and eighths of inches just as exact and easy as on a two-foot rule. I don't think it needs much of an explanation, for it is plain enough for any person to see how it is made.



The distance of one foot on the left-hand side is divided into inches—the figures at the bottom denoting the feet and inches, and those at the ends the eighths of inches. This is to the half-inch scale. The inches are divided into eighths by drawing eight horizontal lines one above the other and at equal distance apart. It does not matter how far apart they are as long as they keep at equal distances. When you have your inches marked at the top and bottom line, then you can draw your inch-lines, commencing at your right hand, 1 at the top to 0 at the bottom, and from 2 at the top to 1 at the bottom, and so on until you have twelve lines; and, by drawing your line from 1 at the top to 0 at the bottom, you will easily perceive that your distance of 1 inch is divided into 8 equal parts by your horizontal lines; then, by marking your feet and inches at the bottom, and your eighths at the ends, it is more convenient, and you save some time in making them thus. You can now get any distance you want very easily. If you want 3 ft. 6⅜ ins., all you want to do is to place one point of your compasses or dividers on the third line from below—on line No. 6—for the inches and the three-foot mark. You will see by this that it is a very quick, easy and exact method of getting any distance you wish.

If you wish to have sixteenths of an inch on your scale, all you want to do is, to make 16 horizontal lines instead of 8, as in this scale, and proceed as before.

Your humble servant, M. F. S.

[Our readers will find the above scale very useful in making their drafts, and may, in many instances, save the expense of purchasing a scale.—ED.]

For the New York Coach-maker's Magazine.

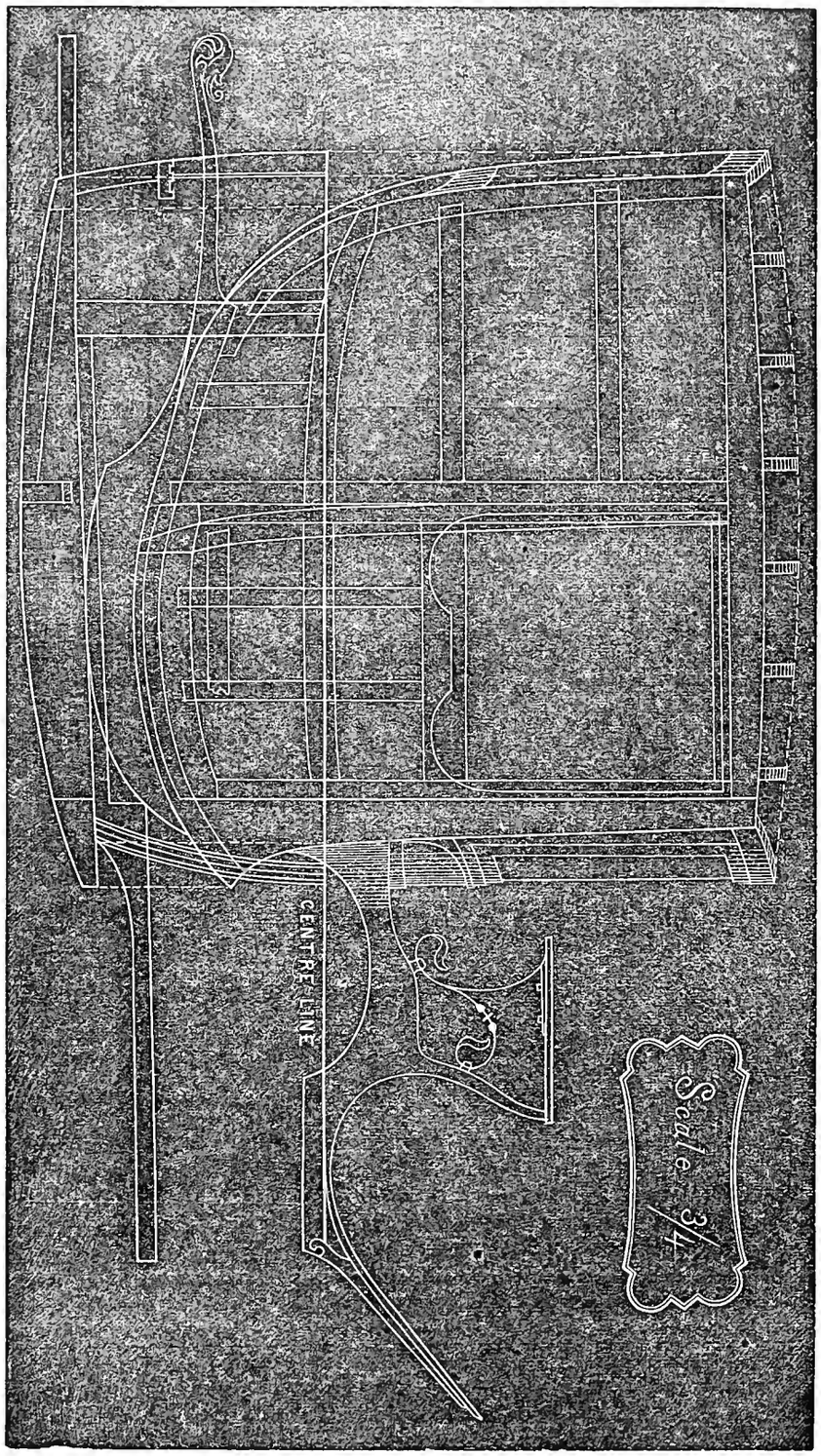
GEOMETRY OF CARRIAGE ARCHITECTURE.

BY A PRACTICAL BODY-MAKER.

PART THIRD.—BODY-MAKING.

(*Continued from page* 166.)

This diagram represents the frame-work of a coupé, with the kant-board in a different position from the others heretofore given in this Magazine. The width of any part of the body can be obtained by measuring from the centre line, which, in this example, is half of the body. You perceive this body is contracted between the bottom-sides and the concave-front, all for the purpose of getting a narrow front. By this kant-board, you can get a body 3 feet 6 inches wide on the seat, and 2 feet 6 inches wide on the front. This drawing shows a compass-front of 4 inches, with sliding frames. These frames are made so as to slide one inside of the other. The square rule is applied to this job the same as in the previous articles. The crooked lines on the rest-rail of the door are to show the manner of the moulding, and might be worked on, to lighten the depth of the panel.



SKELETON COUPE AND KANT-BOARD.

LAPLAND REINDEER TRAVEL.

Bayard Taylor, in his lecture on Lapland, thus speaks of reindeer travel:

"A more bleak and dismal region than the greater part of Lapland could not be imagined, except when the noon-day sky of winter covers it with a mantle of crimson and gold. Here, however, God has made the home of one animal, without which human life would be impossible. What the camel is to the Arab the reindeer is to the Lap. He was created especially for service in the snow, as the camel was for journeys over the sand. He is not much bigger than a large Newfoundland dog, and a strong man could easily lift him. His muscular strength is not great, yet he has a vast deal of endurance. His hoof is divided into two compartments, like that of the camel, so that it spreads out and covers a large surface when he puts it down, the parts coming together as he lifts it up again. This peculiarity, combined with his lightness of body, prevents him from sinking into the snow.

"From this animal the Lap obtains his clothes, tent, thread, needles, meat, milk, butter, cheese, the handles of his knives, in fact, everything he uses, except his musket and a little coffee.

"But of all perverse, obstinate, stupid animals the reindeer stands at the head. Although he has been so long domesticated he has not increased in sagacity. The common deer and the gazelle may become familiar with the presence of man, but they never show the least degree of affection for him; and the same is true of reindeer. All he knows is to jump and run when he is harnessed, and turn round and stand still whenever he chooses to do so. His speed has been greatly exaggerated. There are few reindeer in Lapland that will travel fifteen miles an hour, but there are a great many that will go one hundred and twenty miles in twenty-four hours.

To drive a reindeer in the little canoe-like sledges is like undertaking to drive a sturgeon in a rough sea. It is no easy matter to retain one's balance. If you are a new hand, your first sensation is a perfect blank, for you find yourself head downward in a snow-drift. [Laughter and ap-

plause.] After a series of such experiments, you at last succeed in keeping your balance, even when asleep, and guiding the animal, but you cannot prevent him from jumping round, and staring at you with most provoking coolness, as much as to say, "What are you going to do about it?" There is nothing to do but turn him round, start him again, and take your chance of jumping into the sledge as he runs. The animal shows no recognition of his master, except that he will allow him to approach him more easily than he will anybody else. This is the extent of his affection.

The sagacity with which the deer pick out the hidden path under the snow was astonishing. On those exposed plains every wind fills up the furrows, and the traveler is drifting on a pathless sea. The leading deer, driven by a careful Lap, picks out the concealed trail as easily as a pioneer follows the track; or, if he lose it now and then, crosses backward and forward till he strikes it again. Behind him glides the little caravan in single file, silent and strange as a procession of phantoms. There is nothing to be heard but the breathing of the deer, and the slight crunching sound of the sledge upon the snow; as you sit in the uncertain twilight a strange and subtle enchantment seems to come over you, and you almost doubt your own identity. "Am I," you ask, "the man who once lectured before literary societies, to large and intelligent audiences? [Laughter and applause.] Do I inhabit the same earth where steamboats exist and oysters are opened, [renewed laughter,] and where women's rights conventions are held?"

For the New York Coach-maker's Magazine.

THE THREE-FOLD NATURE OF MAN.

BY CHARLES C. KEYS.

No. VI.

While we are striving to give development and culture to the intellect, we are not to forget that we possess a moral nature, and that our complete manhood depends on the right education and proper government of all our faculties. Man owes it to himself, therefore, that a suitable degree of attention be paid to the cultivation and maintenance of right moral character, and to the performance of moral duties. And in this we are only saying what properly belongs to our subject; it involves the self-interest of every man, and it cannot be ignored unless we consent to unman ourselves, to imbrute our nature, and come down from the high elevation to which, as beings made in the image of God, we have been exalted. Man is not to be considered as an independent being, with interests and duties having a sole reference to himself, and isolated from those of all other beings. An isolated man is unnatural, untrue. Society is our normal state. Every individual man is but a small part of one great whole. He has his place in a vast system, and is related to all his connections; more especially does he sustain important relations to God as his Creator and moral governor, and to his fellow-men as constituting with himself that social order and organism which are of divine institution and appointment. As a moral being, then, man should not act in reference to himself alone, but his affections and conduct should be regulated and controlled with immediate and constant reference to the relations which he sustains to God and to his fellow-men. His moral character, in general, should harmonize with the will of God, as the moral Ruler of the universe. The rule is, "Thou shalt love the Lord thy God with all thy heart, soul, mind and strength." Man is not by nature an atheist. There is an instinctive recognition among all men, even the most barbarous and uncivilized, of a supernatural and controlling power that rules and governs among men, and, in general, they feel it to be their duty and interest to worship and obey this power, by whatever name it may be recognized.

"Father of all, in every age,
In every clime adored,
By saint, by savage, and by sage,
Jehovah, Jove, or Lord."

The footsteps of this divine power they behold everywhere—the traces of his wisdom and goodness surround them on every hand. They hear his voice, though inarticulate, yet distinct, and loud, and full, "as when the seven thunders uttered their voices"—

"They hear it in the summer's wind;
They feel it in the lightning's gleam;
A tongue in every leaf they find,
A voice in every running stream:
It speaks in the enameled flower,
With grateful incense borne on high;
It echoes in the dripping shower,
And breathes in midnight's breathless sky."

And it is thus that nature and revelation, duty and interest bind us to the recognition of God, and to the practice of that filial piety which, as his children, we should exemplify.

The moral affections and conduct of man should be such, also, as not to conflict with the interests of his fellow-men, but such as to promote the highest interests and well-being of society in general. The rule is golden: "Do unto others as ye would that they should do unto you." Or, which is another form of expressing the same thing, "Thou shalt love thy neighbor as thyself." A moral rule this, I hesitate not to say, which commends itself alike to believer and infidel; to philosopher, savage or saint; to man or seraph.

For the purpose of regulating our conduct as moral beings, our Creator has endowed us with the principle of conscience, or with feelings of moral obligation. This is a discriminating faculty, pronouncing judgment on the moral character of actions, and also involving an impulse toward the right, and a restraining influence by which we are deterred from the wrong.

Our duty as rational men is to enlighten our consciences by all the means within our reach, so that we may have a correct understanding of our various relations, and the duties which arise therefrom, and then to abide faithfully by the decisions of this umpire. We cannot pursue a contrary course without breaking up the harmony of our moral feelings, and introducing disorder and "confusion worse confounded" into our minds, losing thereby our self-respect, rendering frigid and dead the finest feelings and susceptibilities that belong to our nature, and blasting all our hopes of decided culture and substantial improvement, as beings made only "a little lower than the angels." To preserve our own tranquillity, to promote our own interest, to develope our own superior natures, we must thus act. Viewed in this light, it is a duty which we owe, not so much to God or our fellow-men as to ourselves, though, at the same time, it may involve the higher class of moral obligations. Herein lies our great wealth. Thus enriched, we may be happy, and defy the revolutions and changes that surround us—live, otherwise, how and where we may.

"True happiness is to no spot confined,
If you preserve a firm and equal mind,
'Tis here, 'tis there, 'tis everywhere."

For the New York Coach-maker's Magazine.

THE SPIRAL OR JACK-SCROLL.

New Haven, Feb. 15th, 1859.

Mr. Stratton—*Dear Sir:*—According to promise, I will give you a method for drawing a spiral:

Fig. 1 is to draw a spiral (or, as I have heard some mechanics call it, a "Jack-scroll.") Having the space A given, first draw your perpendicular line, I, across the board which you wish to use, then take one-fourth of the space, which you have given, and prick it off to your right-hand side of line I, then form a square, one side of which must be the size of this one-fourth of the given space. The square in the figure is represented by *a*, *b*, *c*, *d*. You can now draw your perpendicular line, *k*, and your two horizontal lines, *g* and *h*, each line passing through its respective point in the square. As you now have all the straight lines drawn that you need, you can commence to draw the different circles with your compasses, by placing one point of your compasses on *b* and *d*; with the other extended until it reaches *c*, on line *k*, you can draw the circle from *c* to line *h*; you now must move your compasses from point *b* to *a*,

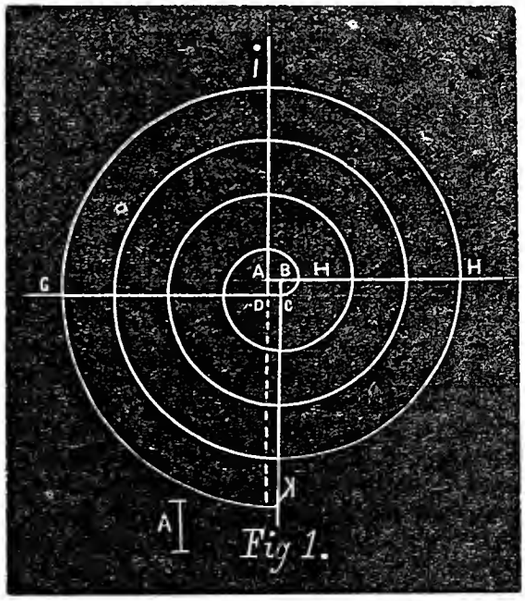


Fig 1.

and with the other extended on line *h*, until it reaches the point of the circle that you first described; then draw your circle with this radius from line *h* to line *I*; then move your compasses again from *a* to *d*, and with it extended until it reaches the part of circle already drawn on line *I*, draw from line *I* to line *y*; then move your compasses from *d* to *c*, and with the radius enlarged until you reach the circle just left, on line *g*, drawn from line *g* to line *k*; then shift your compasses again from *c* to *b*, and keep on in the same way, shifting your points of compasses, and describing parts of different circles until you have the size of the spiral, or jack-scroll, that you desire.

By looking at the figure, you will observe that the circle is gradually getting larger, *without injuring the true curve or sweep of the different circles.*

Fig. 2 is to form a spiral, with the number of spaces and the breadth given, the numbers of spaces in this case being five, and the breadth, from line *n* to *m*. First draw your perpendicular line, *I*, then draw your two horizontal lines, top and bottom, parallel to each other; then take double the number of points you have given spaces (which in this figure is 5), consequently the number of points must be ten. In making these points, I may well remark, that it does not matter how far apart they are as long as you keep them at equal distance from each

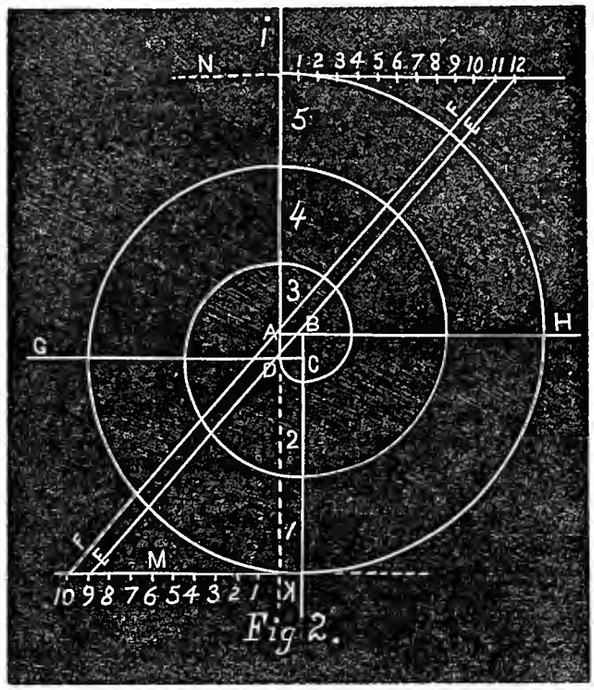


Fig 2.

other, and keeping in mind that you must keep the same distance between the points at the top that you have at the bottom. Take the ten points and mark them off to the left hand of line *I* and at the bottom line *m*, then add two more points to the ten, and mark them off to the right of line *I*, and on line *n* at the top, as you will see in the fig-

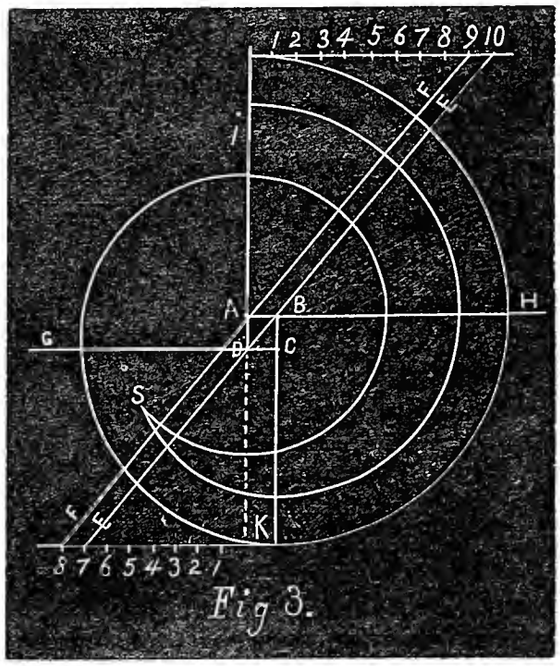


Fig 3.

ure; then draw line *f*, *f*, from point No. 10 at the bottom, to point No. 11 at the top, and line *e*, *e*, from No. 9, at the bottom, to No. 12 at the top, and the distance between line *e*, *e* and *f*, *f*, on line *I*, will give you the size of the

square that you want, in this figure, *a*, *b*, *c*, *d*. Then you can proceed and draw your lines and circles the same as in Fig. 1. By this means you will see we have the number of spaces given—1, 2, 3, 4, 5, inside of the given breadth.

Fig. 3 is the same principle as in figure 2, although this is but a common scroll, yet I would like to ask, how many mechanics are there among us who could draw a large, common scroll? Not as many as there ought to be. Why, I have seen persons, and I am glad to say they were not carriage or coach-makers, go into a building and look at a large scroll for half an hour, and wondering, probably, how a man could possess mechanical eye enough to form a scroll so large and so perfect without the whole world knowing it, and without the metropolis of the whole New World spending $40,000 to celebrate the event. When, by observing this simple rule, those very persons could form a scroll just as large and perfect as that which had brought forth their words of admiration. This figure will very near explain itself, if the reader has given due attention to the two preceding ones. The breadth is, as you will see, given, and you commence drawing this from the top line instead of the centre. As in figure 2, draw your square, *a*, *b*, *c*, *d*, then from *I* to *h*, from *h* to *k*, from *k* to *g*, from *g* to *I*, and from *I* all the way round to *s*, with the same radius.

To draw the inside circle is the same as the outside, commencing at *a*, and making it any size desirable.

Truly yours, M. F. STEIDEMAN,
of St. Louis, Mo.

The Home Circle.

THE BOY SPOILED BY HIS MAMMA.

LIMBY LUMPY was the only son of his mamma. His father was called the "pavior's assistant:" for he was so large and heavy that, when he used to walk through the streets, the men who were ramming the stones down with a large wooden rammer would say "Please to walk over these stones, sir, and then the men would get a rest."

Limby made a rare to-do when he was a baby. But he never was a little baby—he was always a big baby, nay, he was a big baby to the day of his death. "Baby big," his mamma used to call him; he was "a noble baby," said his aunt; he was "a sweet baby," said old Mrs. Tompkins, the nurse; he was "a dear baby," said his papa, and so he was, for he cost a good deal; he was "a darling baby," said his aunt by the mother's side; "there never was such a fine child," said everybody before the parents. When they were at another place, they called him "a great ugly, fat thing."

So Limby grew bigger and bigger every day, till at last he could scarcely draw his breath, and was very ill. So his mother sent for three apothecaries and two physicians, who looked at him, told his mamma there were no hopes; the poor child was dying of over-feeding. The physicians, however, prescribed for him a dose of castor-oil.

His mamma attempted to give him the castor-oil; but Limby, although he liked cordial and pap, and sweet-bread and oysters, and other things nicely dished up, had no fancy for castor-oil, and struggled, and kicked, and fought every time his nurse or mamma attempted to give it him.

"Limby, my darling boy," said his mamma, "my sweet cherub, my only dearest, do take its oily poily—there's a ducky, deary, and it shall ride in a coachy poachy." "O! the dear baby," said the nurse, "take it for nursey. It will take it for nursey, that it will."

The nurse had got the oil in a silver medicine-spoon, so contrived that if you could get it into the child's mouth the medicine must go down. Limby, however, took care that no spoon should go into his mouth; andwhen the nurse tried the experiment for the nineteenth time, he gave a plunge and a kick, and sent the spoon up to the ceiling, knocked off nurse's spectacles, upset the table on which all the bottles and glasses were, and came down whack on the floor.

His mother picked him up, clasped him to her breast, and almost smothered him with kisses. "O! my dear boy," said she, "it shan't take the nasty oil—it won't take it, the darling; naughty nurse, to hurt baby! It shall not take the nasty physic!" and then she kissed him again.

Poor Limby, although only two years old, knew what he was at. He was trying to get the mastery of his mamma; he felt he had gained his point, and gave another kick and a squall, and at the same time planted a blow on his mother's eye. "Dear little creature," said she, "he is in a state of high convulsions and fever; he will never recover."

But Limby did recover, and in a few days was running about the house, and the master of it; there was nobody to be considered, nobody to be consulted, nobody to be attended to, but Limby Lumpy.

Limby grew up big and strong; he had everything his own way. One day when he was at dinner with his father and mother, perched upon a double chair, with his silver knife and fork, and silver mug to drink from, he amused himself by playing drums on his plate with his mug.

"Don't make that noise, Limby, my dear," said his father. "Dear little lamb," said his mother, "let him amuse himself. Limby, have some pudding?" "No, Limby no pudding"—drum! drum! drum!

A piece of pudding was, however, put on Limby's plate; but he kept on drumming as before. At last he drummed the bottom of the mug into the soft pudding, to which it stuck, and by which means it was scattered all over the carpet.

"Limby, my darling," said his mother; and the servant was called to wipe Limby's mug, and pick the pudding up from the floor. Limby would not have his mug wiped, and floundered about, and upset the cruet-stand and the mustard on the table-cloth.

Limby now sat still, meditating what to do next. He was not hungry, having been stuffed with a large piece of plum-cake about an hour before dinner; but he wanted something to do, and could not sit still.

Presently a saddle of mutton was brought on the table. When Limby saw this, he set up a crow of delight. "Limby ride," said he, "Limby ride," and rose up in his chair, as if to reach the dish.

"Yes, my ducky, it shall have some mutton," said his mamma; and immediately gave him a slice, cut up into small pieces. That was not it. Limby pushed that on the floor, and cried out, "Limby on meat! Limby ride on meat!"

His mamma could not think what he meant. At last, however, his father recollected that he had been in the habit of giving him a ride occasionally, first on his foot, sometimes on the scroll end of his sofa, at other times on the top of the easy chair. Once he put him on a dog,

and more than once on the horse's saddle; in short, he had been in the habit of perching him on various things; and now Limby, hearing this was a saddle of mutton, wanted to take a ride on it.

"Limby on; Limby ride on bone!" said the child in a whisper.

"Did you ever hear?" said the father.

"What an extraordinary child!" said the mother; "how clever, too, to know it was like a saddle, the little dear! No, no, Limby; grease frock, Limby."

But Limby cared nothing about a greasy frock, not he; he was used enough to that, and therefore roared out more lustily than ever for a ride on the mutton.

"Did you ever know such a child? What a dear, determined spirit! He is a child of an uncommon mind!" said his mother. "Limby, dear, Limby, dear, silence! silence!"

The truth was, Limby made such a roaring that neither father nor mother could get their dinners, and scarcely knew whether they were eating beef or mutton.

"It is impossible to let him ride on the mutton," said his father; "quite impossible!"

"Well, but you might just put him astride the dish, just to satisfy him; you can take care his legs or clothes do not go into the gravy."

"Anything for a quiet life," said the father. "What does Limby want?"

"Limby ride! Limby on bone! Limby ride on meat!"

"Shall I put him across?" said Mr. Lumpy.

"Just for one moment," said his mamma; "it won't hurt the mutton."

The father rose and took Limby from his chair, and with the greatest caution held his son's legs astride, so that they might hang on either side of the dish without touching it, "just to satisfy him," as he said, "that they might dine in quiet," and was about to withdraw him from it immediately.

But Limby was not to be cheated in that way; he wished to feel the saddle under him, and accordingly forced himself down upon it; but, feeling it rather warmer than was agreeable, started, and lost his balance, and fell down among the dishes, soused in melted butter, cauliflower and gravy—floundering, and kicking, and screaming, to the danger of glasses, jugs, dishes, and everything else on the table.

"My child! my child!" said his mamma; "O save my child!" and she snatched him up and pressed his greasy garments close to the body of her best silk gown.

Neither father nor mother wanted any more dinner after that. As to Limby, he was as frisky afterward as if nothing had happened, and about half an hour from the time of this disaster cried for his dinner.

Sawdust Timber.—A new process has lately been brought before the public in Paris, for re-forming timber out of common sawdust, a substance which is held to be fit only for fuel or softening the floors of those ground and lofty tumbling establishments called *circuses*, to say nothing of dyspeptic bread composed of its indigestible fibres. The process for effecting the result stated consists in submitting the sawdust to a high heat, and severe pressure in a press. It is said to be capable of being thus formed into any shape, according to the mould used, and to present a brilliant hard surface, very beautiful in appearance.

For the New York Coach-maker's Magazine.

"AND *YOU*, TOO, BRUTUS?"

BY LUA DELINN.

Where Rome's proudest sons are gathered—in the lofty Senate-Hall—
Cæsar, like a throned monarch, sits the proudest of them all:
He who fled in youth, a lonely exile from his friends and home,
Wearing now the victor's laurel, rules the whole world—*rules he ROME.*
Calm and proud his outward bearing, but the flashing of his eye
Half reveals the thousand feelings, struggling in his breast which lie;
While his deeds of youthful daring pass him by in long review;
All the scenes and friends of manhood crowd upon his vision too.
For a moment now he pauses, then he cries "The die is cast,"
And the words are scarcely spoken ere the Rubicon is passed.
Now, he flies to Asia Minor, to escape from Sylla's wrath,
Next, he is, himself, pursuing in the fallen Pompey's path.
Back again his fancy wanders till he sees Pharsalia's plain,
Where the blood of slaughtered foemen drenched the earth like autumn rain:
There he stayed the lifted weapon which was hastening to descend—
There he spared the life of Brutus, and secured a faithful friend.
Ah! this brings him to the present, for that friend so true and tried,
Whom he loves above all others, even now is at his side.
But alas! for human nature, Cæsar, in thy sorest need,
Thou wilt find that human friendships fail thee like a broken reed.

See, a scowl is on each forehead, and resolve is in each eye;
"Ha! what mean these unsheathed weapons?" and they flash a quick reply.
Of the throng around him gathered, not one arm its strength affords;
All unaided now he struggles 'gainst a score of gleaming swords;
Then, with all the trust confiding that e'en *woman's* heart could feel,
Turns to clasp the hand of *Brutus* and he grasps—*a blade of steel.*
Ah! how many have, like Cæsar, in the faith of friends believed,
And where most they loved and trusted, there they most have been deceived.
Two and twenty swords had pierced him, yet, returning blow for blow,
He undaunted stood, till *Brutus* took his place *beside the foe.*
Then his hand forgot its cunning, and his weapon fell to earth:
All his faith in man departed—life to him was little worth.
Were he on the field of battle, like a brave man he could fall;
But his *friends* conspire against him, and the one most loved of all.
O! the bitterness of feeling! the despair which fills his soul—
And the conqueror of nations well nigh loses *self-control.*
But a moment and he rallies, yet a sigh is from him won,
And despairingly he falters "*You*, too, Brutus—*you*, my son?"
As he falls, they gather round him, raising a triumphant shout,
For the lamp of life is shattered and its light has flickered out.
Brutus, on historic pages thou hast flung the darkest shade,
We forget the *fallen tyrant* weeping for the *friend betrayed.*
"You, too, Brutus?" though it echoes, faintly out from long ago,
Still can move the deepest feelings which the human heart can know.
But why weep o'er wroogs committed in a land to us unknown?
Rather let our tears be given to the deep wrongs of our own
Tis no *tyrant* that has fallen 'neath an outraged *patriot's* blow,
But within her own fair temple Liberty is stricken low,
By the recreant sons of sires, who around her cradle stood—
Stamped upon her infant forehead the baptismal seal in blood.
O 'tis these, her foster brothers, who conspire to bring her low,
Who should peril life to save her—they betray her to the foe.
If we to the fate of Cæsar give the tribute of our tears,
Shall *her* cry, "And you, too, Brutus?" fall unheeded on our ears?

THE KING OF PRUSSIA'S NEW CARRIAGES.

We are not a little surprised to find the King of Prussia sending to England for his new carriages. We had thought that the Berlin coach-makers were, at least, equal in design with their new relatives. We find, in our files just received from Europe, that the Messrs. Hooper & Co., of the Haymarket, London, have just completed three carriages for the use of his Majesty. The first is a superb dress coach; the second, a double-seated brougham, embracing all the modern improvements, and the third, a light close carriage, much used in England. The colors are said to be of the richest carmine, and the linings of light scarlet. On the panels of the doors are the quarterings of the different provinces of Prussia, together with the national motto, "*Gott mit uns.*"

Pen Illustrations of the Drafts.

For the New York Coach-maker's Magazine.

CLARENCE COACH.

Illustrated on Plate XXXVII.

Bridgeport, Conn., Jan. 31st, 1859.

Mr. Editor—*Dear Sir*:—The accompanying design for a round-front Clarence coach has a few original points. The cornered back-quarters are now applied to this style of job; also the front-quarter sweep. The front of this job can be made compass or round cornered. If for round corners there must be provision made for drop-lights. The corner glass is stationary. The compass-front is described in the article on "Carriage Architecture," on page 205 of this volume. A swell-back can be very easily applied to this kind of job. J. Irving.

QUEEN CITY PHÆTON.

CONTRIBUTED BY H. SEYMOUR, TALLMADGE, O.

Illustrated on Plate XXXVIII.

The original, from which our draft is made, was built at Messrs. Oviatt & Sperry's extensive manufactory at Tallmadge, Ohio. We learn that this firm have acquired an enviable reputation for making first-class and elegant work, the foreman of whose factory (Mr. Seymour) favors us with this draft. There is a peculiarity about the finish of the body, which consists in the dub being supplied with a short pump-handle. The Jenny Lind dash, although not so frequently used here, is still quite fashionable among our Western friends. There are a few other peculiarities which a glance at the draft will not fail to designate. The half-top is very appropriate in this kind of job.

THE TALLMADGE BUGGY.

CONTRIBUTED BY WM. H. GUNTHER.

Illustrated on Plate XXXIX.

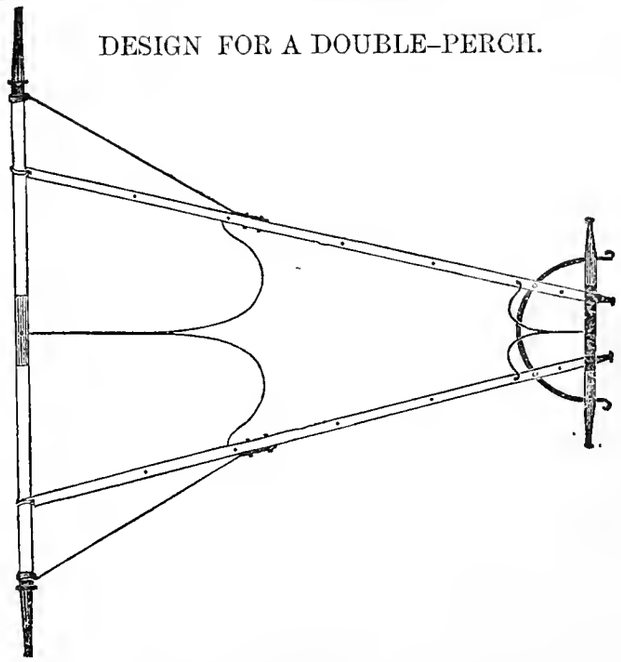
This is another contribution from Tallmadge, from the manufactory of Messrs. J. E. and S. Baldwin. This is a young and new firm, who have gained, by industry, an enviable reputation for doing first-class work. Although we have called this the "Tallmadge buggy," it is in that place called a "half-know-nothing." We are assured by the contributor that "it is a splendid looking affair, painted lake, and ornamented with delicate scrolls, in white, yellow and blue. The shape of the front of the boot is considered original, and the rest of the mouldings render the whole unique."

INVITATION TO VOLUNTEER DRAFTSMEN.

There are several carriage-makers who have written us that they are getting up a new style of buggy. To all such we answer, that we wish they would send on their favors without delay, so that we may get them in the first number of our New Volume. The sketches need not necessarily be artistic—we will see to that matter—providing the outlines of the body are approximately delineated, and the correct length, depth and width are correctly given in feet and inches. A thin paper pattern of the entire broad-side would serve our purpose just as well. We have, the past year, found some difficulty in getting as great a variety of light-carriages as we could wish, or has been called for, which is, no doubt, attributable in a great measure to the fact, that the hard times have not been favorable to anything new the past year. We hope to do better hereafter.

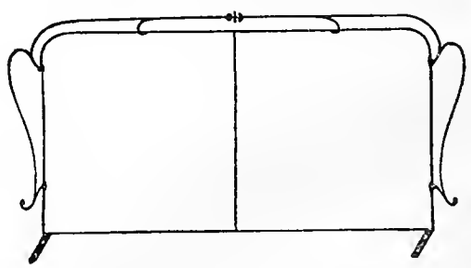
Sparks from the Anvil.

DESIGN FOR A DOUBLE-PERCH.



We are indebted to Capt. Wm. H. Oviatt for this design, as well as the one of a dash which follows. Both are illustrations of portions of the Tallmadge buggy, illustrated on plate XXXVIII., given with this number. The middle back-stay is designed to run to the spring and fasten the same as the stay on a single-reach carriage-part, which, some think, adds compactness to a two-perch gear. We are, for our own part, not in favor of employing iron unnecessarily, but, at the same time, have no disposition for criticising the tastes of others in these pages. To some, we have no doubt, our Western friend's design will prove acceptable.

DESIGN FOR A BUGGY-DASH.



The railing to this dash is entirely bolted to the frame. We give it as a part of the buggy above spoken of.

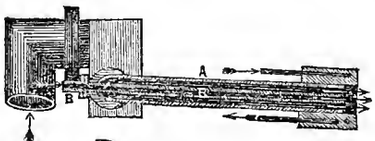
It may be proper, in this place, to say, that we do not wish our readers to think that we, by any means, approve of everything we admit into our columns, neither, as in this instance, do we disapprove of a design because it came from another section of the Union. We merely take occasion here to say, that, as our Magazine is patronized by the craft, E., W., N. and S., we feel like exerting our utmost endeavors to reflect the wants of all in our pages, and

making our Magazine useful, wherever it is taken. These remarks are intended for some critics, who show more prejudice than prudence by condemning everything that does not happen to agree with *their* fancy.

MANUFACTURE OF IRON.

Hitherto attempts have been made to get rid of the impurities in crude iron by the use of oxygenous gases; that is to say, gases which yield or afford oxygen when brought in contact with carbonaceous and other matters at a high temperature, to combine with them, and pass off as gaseous matters. But experience has shown that, in many instances, the use of such gases is extremely deleterious and wasting to the materials employed, from the fact that the oxygenous gases alone, or along with an uncombinable gas, have been employed, thereby causing a too rapid decarbonization, and, consequently, exhaustion of the substance of the iron. It has been found that the use of gases, known to chemists under the name of carbonaceous gases, is essential for the purpose in view. The gaseous matters may be variously applied, depending, of course, upon the materials to be acted on; and where it is necessary to use two gaseous substances, a double blowing tuyere is preferred.

Fig. 1.



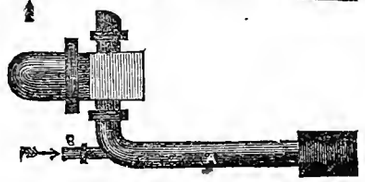


Fig. 2.

Figure 1 of the engravings is a detached sectional view of a compound or double tuyere in detail on an enlarged scale; and Fig. 2 is a plan of the tuyere corresponding. In this arrangement the ordinary blast tuyere, A, has a pipe, B, fitted within it—such pipe, B, communicating with a blast or blowing-engine in connection with reservoirs containing carbonaceous or other combustible gases. These gases are introduced into the molten metal, subsequent to its reduction, by the usual manner, in the hearth of the blast-furnace. The reservoirs may be charged with gases of a known composition, and the supply of each regulated proportionally by passages of suitable size; but, when manufacturing iron on a large scale, it would be found troublesome and expensive to prepare some of the gases; and it has been found that a profitable result is obtained when a carbonaceous gas is diluted to a certain extent with atmospheric air—the dilution depending altogether upon the materials to be acted on. These views have been directed more particularly to the raw material of iron ore employed in Scotland, and which consists principally of the well-known ore, commonly called "black band;" and it has been found that the best results are obtained when the carbonaceous gas, commonly called "coal-gas," is blown amongst the molten metal surrounded with a stream of air, in the proportion of one of gas to twelve of air. The use of oxygenous gases, of which air may be considered one, has failed, owing to the too rapid combustion and consequent oxidation of the metal. But by the use of carbonaceous gases, mixed suitably, or diluted with oxygenous gases, not only is the decarbonization less rapid, and the oxidation of the iron prevented, but the silicon, sulphur, and phosphorus are attacked, and, combining with some of the elements resulting from the decomposition of the carbonaceous gases, are carried off under this combination out of the metal; and the result will be found to be a much purer and tougher metal than has hitherto resulted from any previous application of air or steam, alone or mixed, either in smelting or refining iron.

Paint Room.

For the New York Coach-maker's Magazine.

THE WANDERINGS OF A PAINTER'S PEN.—No. 1.

BY JOHN SHUTTLEWORTH.

Japan, Oil and Turpentine.

Good japan is indispensable, in order to turn out the first quality of a job. To procure this, either purchase it of some responsible manufacturer, or make it yourself. Much of that which is in market was never made so much for use as for sale. We, of the craft, have, by sad experience, found this out to our hearts' content. The cracking, peeling and scaling off of our paints are everyday occurrences with us. All such mishaps may be avoided by only taking the above precautions, as far as regards complaints from that cause.

If any of the trade would like to prepare their own material, they may use the following receipt, at the same time relying upon its being correct, as can be attested by competent judges. One of our largest railroad-car shops in the South uses it in preference to any other, because of its superiority.

RECEIPT FOR FORTY GALLONS OF SUPERIOR JAPAN.

Mix 40 gals. Raw Linseed Oil;
40 lbs. Litharge;
20 " Red Lead;
10 " Black Oxide of Manganese;
2 " White Gum Shellac.

Having set the above oil over the fire, bring it to the boiling point, which can be easily ascertained by the Pyrometer; then add by degrees the litharge and red lead, alternately, and very slowly. When all in, withdraw your fire immediately and throw in your shellac by degrees. When this is all in, put in the manganese—it is better to see the gum all dissolved before adding the last-named ingredient—and keep the whole in rapid motion, from the time the oil is 200° Fahrenheit until you finish making.

When the mixture has become cool enough to bear the finger in a moment, add from 20 to 30 gallons of spirits of turpentine. Here the manufacturer must exercise his judgment, for the ingredients of which it is made vary sometimes in quality. However, there is one rule, which will be a sure guide at this juncture, viz.: Add enough of the spirits of turpentine to sufficiently thin it, so that it may settle and be in better condition for use. After it has settled, barrel it up, and it will be fit for using in a few days.

A smaller portion of this will serve, than of that which is commonly bought at the shops; but japan varies in its drying qualities, according to its age. I cannot say anything under this head, except that no japan ought to be kept longer than about two years on hand, for well-directed experiment plainly proves that, if it is longer kept, it is extremely liable to become faulty.

The reader will please notice that I have been particular

in preferring *pure* linseed oil over all others. It is a fact, well known to most painters, that many foreign oils and other substances are largely introduced into *our* pure linseed, for cheapness, and which injure not only the brilliancy and durability of our colors, but oftentimes the reputation of our best painters. Employers are very often found almost entirely ignorant of any knowledge whatever of the art of painting, hence the reason of the total neglect they evince in purchasing the stock to be used in their shops. I need say nothing further of this matter, for the able and easy pen of my friend Scott has already done it ample justice in a former number, but will proceed to make a few remarks more on the oils fit for the workman's use.

Perhaps spirits of turpentine is deserving of the least attention of all the articles the painter has to deal with, although it is necessary to have good spirits of turpentine as any other ingredient of paint. I make this casual remark because it is less mixed with other liquids, or substances, than either oils or japan. Painters may test the qualities of spirits of turpentine by pouring a little into a saucer or flat dish, and exposing it to the sun until it evaporates. The sooner it evaporates, the better the article; but should it leave a gummy sediment at the bottom, then it is of inferior quality.

And, now Mr. Editor, hoping you and your readers will think there is enough of information contained in these jottings of one of the craft, for the space they occupy, I close, begging all to give the few foregoing lines their due consideration, which will amply repay the writer in his earnest endeavors to forward the interests of that trade by which, with the labor of his own hands, he procures an honest and honorable livelihood.

For the New York Coach-maker's Magazine.

HOW TO PAINT A CARRIAGE-PART—INTRODUCTION.

BY GEORGE P. TINKER.

SUGAR BRANCH, INDIANA.

MR. EDITOR—*Dear Sir*:—As I have given in the previous numbers of your Magazine my experience in painting a carriage-body, I will now give you the plan of finishing a carriage-part. In the first place, to insure a good building, we must have a good and permanent foundation, or else the building will crumble and fall, and, on the other hand, we may have ever so good a foundation, but, if the building is not finished accordingly, it will not stand, and the carriage-painter should have this fact in view. I have seen many well-painted jobs, to all appearance, where the paint would scale off down to the wood. In such cases we naturally conclude that the priming was not well mixed and applied, and very frequently we see painting that peels off and leaves the priming, and then we are led to believe that the foundation is permanent, but the building is not joined together solid, or else it would not crumble above it.

Some painters say that the reason of paint blistering, cracking and fading, is on account of the job being used so soon after it is painted. I will admit that it is more liable to blister when it has been lately varnished and exposed to the weather; but the reason why varnish so soon loses its gloss is, that country people do not take the right kind of care of their carriages. I painted a light open buggy for a young man in the latter part of June, 1857, and he sent me word that it must be done by the following Saturday, as it was the 4th of July, a day on which young Americans want to show themselves.

Well, on Monday I applied the last coat of varnish to the body out-doors in the sun, so as to hurry it along as it had yet to be trimmed. The gearing I striped on Wednesday, and Thursday afternoon I applied the last coat of varnish to the gearing. On Friday morning we put the bands on, and hung it up ready to run. About noon, the man came and took it away, and used it on Saturday, and was caught seven or eight miles from home, with his new buggy, in a tremendous rain storm, which he thought had spoiled his buggy, but when he got home, taking a bucket of clean water and a sponge, he washed it all off clean, and wiped the body dry with an old silk handkerchief. By so doing he brought back the gloss, and he continued to wash it every time it got muddy or dirty, and about nine months after, it was returned to the shop to have a new spring-bar, when I took particular pains to notice it, and to inquire how it had been treated. As another test, I painted three buggies at one time, using the same lead paint, the same filling, and the same color, and the same varnish. The first buggy run out, a farmer purchased, the second a young blacksmith took, and the third a widow woman got.

The first buggy blistered some, and looks rather old, and the purchaser says I did him rather a bad job. The second man says I did him a pretty good job, but that it shows some signs of cracking. The woman says that hers is a first rate job; it looks as bright as ever. The difference in the buggies was not in the time that they had been run, but in that the woman had a boy about big enough to keep it well washed, and a good dry shed for it to stand under. Now this is my personal experience in regard to taking care of carriages, and it is but a small job to keep the body clean by washing and wiping with an old silk handkerchief. Silk is next to buckskin for rubbing off a varnished surface. I have extended this part of my subject too long already, I fear, and will now bid you a good-night, with a promise that you shall hear from me again.

VARNISH—ITS HISTORY AND MANUFACTURE.

THIS branch of manufacture was first started in the United States by P. B. Smith, at 202 Bowery, New York City, in the year 1828, previous to which time the process was confined to a few individuals, who merely manufactured for their own use. In 1829, Mr. Smith took in a Mr. Hulburt as a partner. In 1830, or about that time, William Tilden and Mr. Hulburt commenced the business. From these two establishments has grown up the present extensive business of its manufacture in America. In 1834, P. B. Smith took in as partner B. L. Smith and S. P. Smith, under the firm of P. B. Smith & Brothers. This firm was dissolved in 1836. S. B. Smith removing to Newark, N. J., took into business with him a former agent, Mr. Daniel Price.

In 1839, this firm was dissolved, and now there are in Newark, engaged in the manufacture of varnishes, S. P. Smith, D. Price & Fitzgerald, Moses Bigelow, Thompson Price & Co., Shipman & Johnson, Pierson & Robertson, and Price, Bond & Co. From these seven establishments

are sent out all over the United States, the Canadas and Mexico, the celebrated *Newark Varnishes.*

S. P. Smith's establishment is not only one of the oldest, but, probably, the largest of the kind in the country. He keeps on hands 22,000 gallons, 12,000 of which is coach varnish, the value of which is some $45,000. This establishment occupies ground 100 feet square, covered with fire-proof buildings, and is capable of making 500 gallons of varnish per day. He is now manufacturing a wearing body-varnish, which some prefer to English, of which we can speak very favorably, having used it in our paint-room.

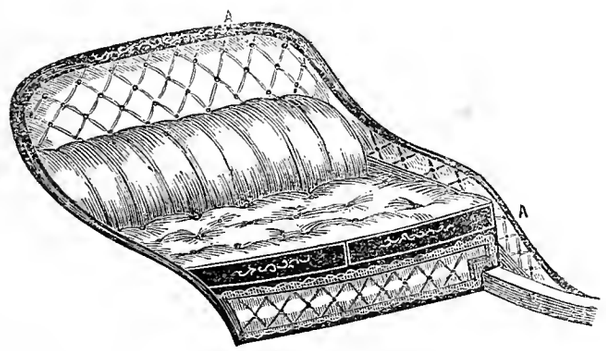
In our late visit to this establishment, we learnt something that may be useful to our readers—that is, that varnish, taken from the top of a can, stands in age as 3 to 2 compared with that at the bottom of the same can. It looks almost incredible, yet we are assured such is the fact —that $85,000 capital is required to do a business of $140,000 at varnish making! From this some idea may be formed of the vast sum invested in the business at Newark.

Trimming Room.

For the New York Coach-maker's Magazine.

DESIGN FOR TRIMMING A PHÆTON BODY.

CONTRIBUTED BY L. B. BIERCE, OF OHIO.



In the above design, the roll A is made of collar-leather, about two and a half inches wide in the centre and gradually tapering down to the sills. There is a small neat figure of white stitching in the middle, and a plain row of the same on each side of the roll down to the arm.

The inside of the arm is a fulled roll of drab cloth drawn down with silvered buttons extending from the back to the sills on each side; below it the cloth is plain.

The back also is formed, in the common diamond and roll fashion, of drab cloth, with silver buttons.

The fall has a single row of diamonds through the middle, which is also of drab cloth lightly stuffed and finished with a strip of stitched patent leather around it instead of lace.

The cushions of cloth are finished with stitched patent leather facings, the whole forming a unique and tasty job.

[We are under obligations to our Western friend for the above design. We hope to have many who, like him, will devote a half-hour occasionally, in adding interest to our Trimming Room. Come, friends, can you not contribute something that is new?—Ed.]

THE TOURNAY CARPET—A NEW ARTICLE.

A new style of carpet, particularly adapted to the finer description of buggies, has just come into use in the New York market. It is known here as the Tournay Velvet. It may be had of green, red or blue colors, at $1.88 per yard. The figures, in design, differ from those usually found in tapestry velvet carpets, in that they more really resemble those generally found in the oil-cloths used in carriages, and, consequently, are less gaudy, but more neat and tasteful. As a carpet for the buggy on Plate I. of this volume, where the back is open, and a carpet is wanted to extend the length of the floor, they are just the thing; indeed, a good job can scarcely be called such without it.

EXPLANATION OF STITCHING PLATE D.

CONTRIBUTED BY RALPH SMITH, JR., ESQ., OF NEW HAVEN.

The several designs in the corners of the engraved border represent four different styles of corner patterns for boots, dashes, falls, etc.

Nos. 1, 2 and 3 are designs for the center ornaments of side boots; they are, however, but half patterns.

No. 4. Is a half figure for a bow cap.

No. 5. Is the half-pattern of a design for cushion facings and the side-quarters and backs of tops.

A HORSE ANECDOTE.

A Canadian friend of ours was telling us, the other day, how he managed to break a favorite horse of his of one trick—that of breaking his halter whenever he was fastened in the stable. Our friend placed the animal in question in a stable that stood exactly on the edge of a high bluff some thirty feet above the St. Lawrence. As usual, so soon as he was left alone, our pony broke his halter, backed out of the stable door, and, as a necessary consequence, tumbled, heels over head, into the river, disappearing below the surface with the impetus and gravitation of his fall. He was next seen swimming for dear life, and heading in-shore. He landed in a dripping condition, and was easily secured. Doubtless, he pondered gravely over the lesson; for ever afterwards he never made the slightest attempt to break his halter. The philosophy of dealing with horses, and, perhaps, with nobler animals, is to fight them with their own weapons—to let them be punished by their own vices. If your pony has a trick of backing, back him a quarter of a mile—if he stops, tie him fast to the place for from twelve to twenty-four hours, without food or water, and he will be glad to obey you when you next call on him. At least, so says our Canadian authority.

Wagons in the Utah Expedition.—One hundred and forty six trains of wagons were sent out—total number 4,796; rather a large show. Each train had 320 yoke of oxen—in all 46,720. The men attending these trains numbered 4,380; being 20 men to each train. The weight transported was 24,000,000 pounds. Who foots the bill?

All men who do anything must expect a depreciation of their efforts. It is the dirt which their chariot wheels throw up.

The New York Coach-maker's Magazine.

APRIL 1, 1859.

E. M. STRATTON, Editor.

TO READERS AND CORRESPONDENTS.

☞ *All letters directed to this office on business,* NOT *relating to the Magazine, but solely for the writer's benefit, must inclose a stamp; if requiring an answer, two red stamps. Orders for a specimen number must be accompanied with nine three-cent stamps. When these terms are* NOT *complied with, no attention will be given them.*

OUR RULE.—*All subscriptions terminate with the numbers for which advance payment has been made. Those wishing to continue will, therefore, see the necessity of renewal, by sending in the money in time. We intend to regulate our Edition of the* SECOND VOLUME *as near the wants of the craft as possible, so that an early order is desirable.*

AGENCY—TO COACH-MAKERS.—The publisher of this Magazine offers his services to fill orders for any article *his friends may want, to be found in the New York market,* FREE OF CHARGE, *where the individual is a subscriber. None but orders inclosing the cash, pay a le on delivery by express, are invited. Letters of inquiry* MUST *contain two red stamps.*

—

"W. D., OF N. J."—We hope to be able to give your draft in the May number. Please remember us again. Much obliged to you for your kind attention.

"K. & W., of N. Y."—We sympathize with you in your losses, and are very sorry that you have lost six months' subscription to the publication named; but since it might have been a greater loss—in this case not much—the best policy is to bear it philosophically. It may be some consolation to find many of *his* "old friends" *in the same boat*, among whom are *our* friends, Kidder & Aeby.

"L. D. G., OF ALA."—If you will send, per ship, your old files, we will have them re-cut and returned to you "all right." This *is* a branch of our commission business.

"T. H., OF TENN."—We publish a chart 10½ by 13 inches, containing 24 figures—mostly light carriages—with card in the centre. For a single hundred, the price is $12, for 200, $22, delivered, by express, at your expense for transportation and collection of the bill.

"B.J., OF PA."—We will send you any article you may want, to be found in New York. The price of the axles you name is $7. We can send them by express, and you pay the bill and express charges on delivery. You should have sent two *red* stamps in your letter, to pay postage on return letter.

"J. A. S., OF PA."—We can supply your "fellow chips" with the numbers complete from June last. The "best linen thread," we find (white), is Marshall & Co.'s, No. 35.

"I. H., OF N. Y."—Your communication came too late for this number; it will be given in our next.

CABS vs. COACHES FOR NEW YORK CITY.

MUCH has of late been said, in the public prints of this city, about our hackney-coaches being a disgrace to Gotham and a terror to strangers; that they are unwieldy, slow, expensive and not over cleanly; that the drivers are, for the most part, totally independent of the ordinary restrictions of civility, and numerous other failings with which "cabby" has been charged ever since the times when the renowned and popular Mr. Isaac Bickersteth, of the *Tattler*, assumed the character of being the town's censor. We will not, in this place, undertake to defend "cabby" against the charges brought against his practices; for we are fully persuaded that his long continued impositions on the public fully entitle him to all the abuse he gets. But, while there are some who would fasten all the blame upon the persons who have adopted hacking as their business, either from choice or necessity, there are others who would charge all the blame to the system, or rather to the want of some well-ordered system by which matters might be better regulated. Now, according to an "old saw," it is much easier to find fault with a system than to mend it. Of this we have evidence in every department of life. We are fully pursuaded that the principal cause for complaint is attributable to the low character of the persons engaged in the business, and until such a time in man's history shall come, when bipeds of the *genus homo*, of better education and greater moral worth, shall enlist in the business, in vain may we sigh for any improvement from any new description of vehicle that may be hereafter introduced.

The public has already been "bored" with articles from different writers, English and American, showing us that the cab systems of London and Paris are far superior to our own, since the law is so nicely formed, and regulates the movements of the drivers so precisely, that "the public use a cab ten times to the once they would, if they expected to be imposed on, as among us." Now, all this may sound very well in the ears of persons with the "bump" of credulity largely developed, and who listen, in ignorance of the fact, that complaints, "loud and deep," are constantly coming from the other side of the water of these same kind of people. Were it otherwise—were these London and Parisian cabmen as perfect as these newspaper scribblers claim they are—how can it reasonably be expected that any certain system would work alike beneficial in monarchical Europe and republican America?

Great stress has been given to the superiority of the joint-stock companies of Paris and London, which monopolies were expected to serve the public with unheard of faithfulness. They may have met the public's expectations, but, with their present financial troubles as a warning before a Yankee's eyes, we judge it will be a long time before we find capital invested in such monopolies in this country.

Some of our brother editors of this city, whose knowledge of history, as applied to New York, does not extend further back than "a dog's age," "go in" strongly for a system of cabs for the metropolis. They say, if the hack-owners would manage their business "as *a convenience inviting custom*," instead of "*a necessity exacting tribute*," their fortunes would soon be made; that "the main thing wanted is, a system of cabs which shall *not be permitted to compete* with each other for business, but which shall perform the service in the best manner possible at fixed and sufficient rates. The best form for such a system is that of a joint-stock company, as in Paris, which would secure the great-

est advantages with the least draw-back. In one sense it would be a monopoly, but this would be rather in form than in fact; for any one who might choose to enter into the business could do so by buying shares of the stock. The great points of paramount importance—uniformity, regularity and responsibility—could be secured in that way much better than in any other."

We are satisfied that if business men would give attention to this subject, they would find in it the means of making money, as well as of rendering the public an essential service. To the unsophisticated, our cotemporaries' arguments may appear plausible, and, no doubt, they are sincerely given; but, then, *we know* that the cab system has been tried here, and failed, and that, too, at a time when rail-cars in cities were unknown. With the experiment in mind, and its result, we think it will require something stronger than newspaper argument to enlist any amount of capital in a business where the prospects of success are about as likely to prove advantageous as the purchase of building plots in the moon. *Verbum sap.*

THE CARRIAGE INTERESTS.

A cotemporary, who "goes in" strongly for riding on horseback instead of "in trotting-wagons," has lately amused *this town* with a lengthy disquisition on the benefits to health to be derived from the ancient mode of traveling, and the different and more injurious results brought about by the patrons of what he is pleased to denominate the "carriage interests." He states that, "the driving of vehicles is a 'great institution' among us, and may be safely said to constitute almost the only out-door amusement of the majority of our male population. The ambition of every fast man, young or old, is to possess a wagon, with one or two trotting horses attached; and so exclusive has, of late years, been the devotion to this species of recreation, that the art of riding on horseback may be said to be almost extinct amongst us. Between the two modes of rejuvenating either mind or body, there can be no sort of comparison. Apart from its interest in the betting-ring, and its influence on horse-breeding, there does not exist a more unsightly and piteous spectacle in nature, than a fast man, wrapped up in furs in a wagon, with extended arms forcing a horse along at twenty miles an hour. There is no physical benefit to be derived from the operation, inasmuch as the movement is not sufficient to exercise the muscles of a school-girl, and it cultivates no one quality of body except quickness of eye and a cobbler's manual dexterity, and cultivates no quality of mind, save the habit of attention."

This foe to "the carriage interests" goes on to show, in his peculiar strain, that, in the whole range of national amusements, it would be a difficult matter to find one so extensively pursued, which results in less benefit either to the national *morale* or the national *physique*—a deplorable view of the matter, truly, if true. At the North, he continues, it has taken the place of everything else, and predicts that the result must be physical deterioration, and that the finest races of mankind, physically, are those whose devotion to the horse leads the rider to use him under the saddle, and gives as examples in proof, the Poles, Hungarians, Turks, the upper classes in England, and the Southern planters in this country. Among these peoples, he says, equestrianism is a passion, and that sitting astride of and managing a horse well is looked upon as the manliest and grandest of sports. "*The horse was made to be ridden in the saddle*, and his devotion to other purposes is one of the necessities, perhaps, but also one of the abuses of civilization. Dragging laden vehicles, by pulling from the shoulder, is an occupation only fit for bullocks, and, in those countries in which he exists in greatest perfection, it is a use to which bullocks only are put. * * * * How much wagon-driving 'granny' fashion, with swathed legs, will give our young men's chests an inch in breadth, or add an ounce of flesh to their attenuated calves?"

In pursuing this subject, our cotemporary, *granny* like, says there is no place in New York "to ride with safety to either horse or rider. Places frequented by fast trotting-wagons are out of the question, because a horseman runs imminent risk of being run down at every stride by another class of pleasure-seekers, whom an infinity of drinks render unfit for any amusement but that of sitting bolt upright in a wagon, holding on by the reins, and shouting at a degraded steed."

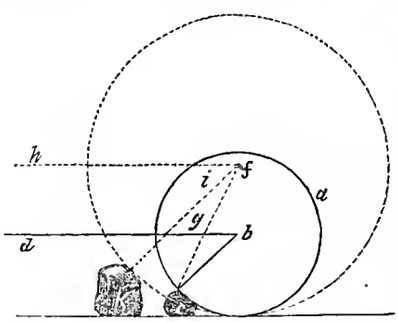
This friend of hoseback-riding, who pleads so strenuously for the horse practice, and deprecates the practices of all who ride in wagons as being degenerating, and praises so greatly the custom of the Turks, and other *barbarians*, must evidently belong to a class denominated "old fogy." He would stop the march of civilization, and send us back to the days when our grandmammas were wont to go to meeting, mounted on horseback, behind our grandpapas on a palfrey—to the time when it took at least two weeks to travel from New York to Boston, to the times when no railroads traversed the country. The riding on horseback *may* answer very well for those who are not able to pay for a "trotter," or road-wagon, but we fancy it will be a long time before we go back to the primitive practices of by-gone times to sit astride of the horse, to have our bones dislocated, when we may pleasantly, and healthily, too, drive along in a light vehicle and thereby show that we belong to the class denominated civilized, as distinguished from the Gauchos of South America, or the Aborigines of other climes. Our cotemporary forgets that there are thousands of mechanics and others who have quite as much exercise of limbs as is consistent with health, in their daily occupation, and for such—who are the larger portion of our citizens—a light-wagon is not only a luxury,

but likewise contributes to give a healthy tone and vigor to the whole system.

We know of many worthy and respectable persons who ride in carriages, and who probably would not feel very much flattered by our cotemporary's designating them "piteous spectacles in nature," but who are the very citizens whose enterprise and good character are a credit to any community. These are the industrious men, whose enterprise has built our noble ships, whose sails whiten the bays of every clime; whose wealth has erected those beautiful edifices which adorn our Broadways and other public thoroughfares, and whose private and public character commands the respect of all among whom they are domiciled. We never think any less of any man who rides in "a trotter," providing he pays his honest debts—particularly his coach-maker—neither do we think he will be the less healthy because he rides in a buggy, instead of *straddling* a horse. It has come to be too general a practice, to call every man, who may happen to drive out of an afternoon, "fast man," when in truth a large proportion are as far removed from that class generally called *fast* as these penny-a-liners are from that class of people called "respectable." We like to see those who can, enjoy life, and we would like to see ten carriages where we now see but one. As we have elsewhere shown, there can be no better indication of a people's civilization, than to see in the community a general patronizing of "the craft."

THE ADVANTAGES OF LARGE OVER SMALL WHEELS ILLUSTRATED.

It is evidently advantageous to employ wheels of large diameter for carriages, which are beneficial in this respect, as they experience less resistance from the inequalities of the surface over which they roll, as the leverage to which the power of the horse is applied is as the diameter of the wheel; and, as any obstacle on a road will sooner come in contact with a large wheel than with a small one, in consequence of the curvature of the former being flatter than that of the latter, so the power by which the wheel is drawn over the obstacle is exerted through a greater space with the large than with the small one. We shall endeavor to explain this by a little diagram. Let the



circle *a* represent a small wheel, whose axle is at *b*, and *c* a stone lying in the road, over which the wheel is to pass; and the dotted circle to represent a large wheel, whose centre is at *f;* now the obstacle *b* is already in contact with the large wheel, but the small wheel has not yet arrived at it. The horse would, therefore, move through a greater space, in bringing the centre of the large wheel perpendicularly over the obstacle, than in bringing the centre of the small wheel over the object after it had come in contact with the periphery; thus, the horse exerts more power, or, what is the same, exerts the same power through a greater space with the large wheel than with the small one. And again, as the angle *k f h*, at which the obstacle *k* interrupts the large wheel, is the same as the angle *c b d*, at which the obstacle *c* interrupts the small wheel, the same force which will draw the small wheel over the obstacle will, by the increased leverage, draw the large wheel over the obstacle *k*. The advantages above attributed to large wheels over small ones are not merely theoretical, but have been confirmed in a variety of instances in practice.

BINDING OF THE COACH-MAKER'S MAGAZINE.

We would thus early apprise our friends that our binder—Mr. H. Stocking, of 14 Frankfort st., N. Y.—is getting up a design for the cover of this Magazine, which he intends shall be handsome as well as appropriate. As he is a worthy gentleman, and a good mechanic, we hope our friends will remember him. Those who prefer leaving their numbers at our office will have their orders executed and returned to them as they may direct. The price of binding per volume, handsomely done in cloth, gilded and lettered, will be 75 cents; half bound in muslin, or full sheep, plain, $1; full binding in morocco, $2 75; for gilt edges to any of the above, 37 cents additional. Covers will be furnished to any who would have *our* uniform pattern, so that the work may be bound in any locality where a binder can be found. The price of covers will be 44 cents each. We would suggest to clubs abroad that they send their volumes to us, by express, which we will have bound, and returned to them punctually. We shall make no charge, *only* such as the actual costs incurred for transportation and the binder's bill above named.

PORTRAITS FOR YOUR OFFICE.

Those of our friends, who would like to ornament their offices with the portraits of such gentlemen as have been published in this Magazine, are informed that, on the receipt of twenty-five cents in stamps, we will mail (post paid), to any address, such as they may designate, printed on paper suitable for framing. We hope our friends will send for the pictures, since what can more properly be hung on the walls of your office than the portraits of these distinguished fellow-craftsmen. They have cost us a large sum to engrave, and are admitted by all to be as truthful as they have been expensive. Our list now comprises the portraits of Messrs. James Brewster, of New Haven, Conn., Jason Clapp, of Pittsfield, Mass., and William D. Rogers, of Philadelphia, Pa.

TO MONTHLY PURCHASERS OF THIS MAGAZINE.

The *only* terms on which we can consent to supply this work is, by subscription, *paid in advance*. No other mode of getting it will be tolerated after the close of this volume. It will thus be seen that the dealers in cheap publications can only furnish our Magazine by getting from *their* customers, and paying to us when ordering, the published rates of an entire year's subscription. As we intend to keep on hand the back numbers, we prefer to have all subscriptions commence with June, annually. We have been compelled to adopt this rule, to protect ourselves against loss, as the following statement will show. Suppose we print, monthly (as we do), a certain number of copies, and sell *by the number* to suit the caprice of the public, where should we stand at the close of a volume? Let us see—

A is a country dealer in cheap publications, who orders weekly or monthly *all* his stock from a wholesale dealer, B, in New York city, and with his other orders he sends, in June, for 25 copies of "The Coach-maker's Magazine;" in July, for *only* 5; in August for 40; in September 10; in October for 15; in November for 7—just as the country dealer's customers may choose to buy. Out of 40 volumes of 480 numbers supplied in the same ratio for one year, we have sold 204 numbers, leaving 276 odd numbers on our hands, being more than one-half. Now, if we should sell the 40 volumes at $2.50 each—which is the average between single and club rates—they would net us $100; whereas, the 204 numbers, *sold by the number*, at 20 cents (our price to wholesale dealers) have only brought us $40.80. Now, since these 204 numbers have actually cost us, in our edition of 5,000, $22.44, we are, consequently, $18.36 out of pocket! *Imagine, then, how profitable these monthly customers must be, to us*, and how necessary it is that we supply our work only by subscriptions paid in advance. We shall present certificates in our next number, showing that, by *paying in advance*, our generous friends will run no risk of losing their money, without receiving all they pay for.

FAMILIAR LETTERS FROM THE CRAFT.

Pioton, Canada West, February 24th, 1859.

Friend Stratton—*Dear Sir*:—I dare say, my long silence has almost led you to believe I had forgotten my duty, as a member of the craft, to your Magazine. I have been absent from home some time, which is my reason for not writing. For your kindness and the benefit of your Magazine, together, I inclose $3. I have been trying to get you up a club, but it is no use for this volume. You see, the old club, of which I am a subscriber, sent our subscription money last spring to Columbus; but when the money got there, through the carelessness of the head-piece in leaving the *'scape-pipe* stopped up between two days, where there was so much steam—or you may call it *wind*—continually drawing to that *great* center, something must give. The consequence was, it "bursted" up; so you see it *stagnated* our subscriptions with the rest, until * * * got his paw on them, when he staged o-p-h.

So you see, Mr. Stratton, that is the reason *I cannot* get up a club at present. I thought I would send the chap a valentine; but, on second thought, I said, no! for the fellow would put his hand into any of our pockets to pay the postage. The answer he gives to letters is, that he has suspended for a short time, to appear soon in a new style. Bad style that! I would say to some of his old supporters, how do you like *his* style? But I have said enough on this point. Let him go; for the curtain that fell with hisses on his last exit will rise no more.

A word to the craft:—I would say as a subscriber, that we get more value in the "New York Coach-maker's Magazine" for $3, than in any other publication; and as it is the only one of the kind *that lives*, let us put our shoulders to the wheel, and keep it rolling.

Wishing long life to you, and the best of success to the Magazine, I am yours, J. C. Norris.

Rahway, N. J., February 28th, 1859.

Mr. Editor:—In a former number of your valuable Magazine, I noticed two articles by correspondents, stating the need of, and the good that would accrue to our profession by the formation of a Coach-makers' Society. The object, therefore, of this note, with your kind permission, is to inform your former correspondents on this subject, and coach-makers generally, that a Coach-makers' Society, embracing all the branches of the craft, was organized in this city, January 6th, 1859, which is rapidly absorbing the entire profession in this place. The objects of this society are not local, but general in their tendencies. Its aim will be the mutual benefit of its members everywhere. We do not seek to ignore the interests of the employer, except such as you term "wood butcher." I do not design to occupy much of your valuable space, and will merely say, that this Society is ready to organize branch societies wherever there are a sufficient number of carriage-makers to sustain an organization. Persons wishing a copy of our Constitution and By-laws will be furnished with the same free of charge, by addressing the National Coach-makers' Association, Rahway, New Jersey.

In accordance with publishers' rules, I give you my name, and subscribe myself, Yours, respectfully,

Isaac A. Peck.

Charleston, S. C., March 2d, 1859.

Mr. Editor:—After fifty hours' sail from New York, I arrived in Charleston, glad to be liberated from the narrow confines of a ship's deck.

After a good night's rest and a couple of meals, such as only Aunt Chloe, of "Uncle Tom" notoriety, knows how to prepare, I felt sufficiently recruited to give the hospitable city's carriage business a thorough investigation, thinking, perhaps, many of your readers would like to know something in relation to the carriage-making interest in the South.

It is a fact well known to me, that many of us, Northerners, think, if we could only secure a situation in the South, we would be all right. Not so, my friends, for many a good artisan in the South is, while I am now writing, working for one dollar and a half, and if they should, perchance, be able to get $1.75 or $2.00 per day, they are fortunate, indeed. Many came here last fall seeking employment, with scarcely a cent in their pockets, and, of course, in a deplorable situation.

After such a statement of facts, I wish to ask my fellow-

craftsmen, if *they* do not think we have already enough help to do the little we have to do. A trial will convince them this is too true, and would have been so to a still greater extent, had not the South Carolina R. R. Co. been more than usually busy this winter, which has given occupation to some of the surplus labor of our market at ordinary prices.

Therefore, my advice to all good carriage-makers, or all who are any-wise connected with the craft, is, if they have a good situation in the healthful North, to retain it in preference to going South. Such is the state of things, in this city, at least.

The carriages here, as well as the houses, are kept but poorly painted. Nearly everything in Charleston has an old appearance, and looks quite ancient, as if the faithful sons of "the cream state of the Union" were fast losing their usual appellation. The Palmetto State loves the styles, and adheres closely to the instructions imparted to them by their ancestors, in carriage-making, above all other branches of industry.

A few years ago, quite a trade was carried on in the manufacturing of carriages. But the Charlestonians found themselves inadequate to the task. Northern enterprise was wanting, and the peculiarities of the climate so discouraged the undertaking, that it was almost entirely abandoned, after what was called a fair trial.

There are, at present, five large carriage repositories in Charleston, of which Mr. Reynolds' and Mr. Gales' are the largest, and, perhaps, the most liberal-minded dealers in this part of the South. I cannot say just what amount of sales they make in the course of a year, but one thing is certain, they must be larger than any other house in this city.

Mr. Reynolds formerly manufactured large quantities of carriages for this market, and Mr. Gale, I believe, entered into it also quite largely, but, finally, abandoned the business, for reasons before stated.

South Carolina is not noted for its trade in fine carriages, although many such are brought here yearly. Nine-tenths of the first class are either taken in the interior for sale, or sold directly by our dealers to the wealthy Georgians and Alabamians, who are noted for driving the finest horses and carriages in the whole South, and, perhaps, in the United States. Although the dealers, at present, are doing a good business, it is principally on plain styles, bringing but middling prices, much of it being for this State and North Carolina.

* * * I will not, Mr. Editor, trouble you with any more Southern jottings this time, but, perhaps, I will have a good long letter written you in other parts.

J. Shuttleworth.

Preserving Timber from Decay.—The following simple plan, common in Burgundy, for preserving timber from decay and from the attacks of insects, may be worthy the notice of your readers. The wood, having been steeped for 48 hours in a solution of copper, in the proportion of one kilogramme (about 2 lbs. 3 ounces), and 4 drachms (almost a quart) of water, must be allowed to dry in the shade, after which it should be washed lightly with lime. If it does not, after the first immersion, acquire a bluish green color, the operation must be repeated. This plan is very economical, and has been tried with great success on fifteen different kinds of wood.

The Humorists' Column.

"A little nonsense, now and then,
Is relished by the best of men."

Two Irishmen, in crossing a field, came in contact with a donkey who was making "day hideous" with his unearthly braying. Jemmy stood a moment in astonishment, but, turning to Pat, who seemed as much enraptured with the song as himself, remarked: "It's a fine large ear that bird has for music, Pat, but sure he's got an awful cowld."

An Englishman, traveling in Kilkenny, came to a ford, and hired a boat to take him across. The water being more agitated than was agreeable to him, he asked the boatman, if any person was ever lost in the passage. "Never," replied Pat; "my brother was drowned last week, but we found him the next day."

A Dutchman, being advised to rub his limbs well with brandy for the rheumatism, said he had heard of the remedy, but added: "I dosh petter as that—I drinks the prandy, and den I rub my legs mit the pottle."

A Boarding-school Miss, deeming "eat" too vulgar for refined ears, defines it thus: "To insert nutritious pabulum into the ventriculated orifice below the protuberance, which, being masticated, peregrinates through the cartilaginous cavities of the larynx, and is finally domiciliated in the receptacle for digestible particles."

An Irish soldier, who was boasting of his great courage, was asked why he ran away in battle. "Faith," says Pat, "me heart is bold as a lion, so it is; but I happened to have a pair of cowardly legs, which always run away wid me body whin I'd be after the inimy, bad luck to them!"

A gentlemanly loafer, recently arrested in Cincinnati, being questioned by the officer as to his vocation, he replied: "Sir, I am a doctor; I have cured a pain in the head of navigation, and drawn teeth from the mouth of the Mississippi! I have anatomized the side of a mountain, blistered the foot of a hill, felt the pulse of an arm of the sea, plastered a cut on the hand of nature, and cured a felon on the finger of scorn." He was immediately set at liberty.

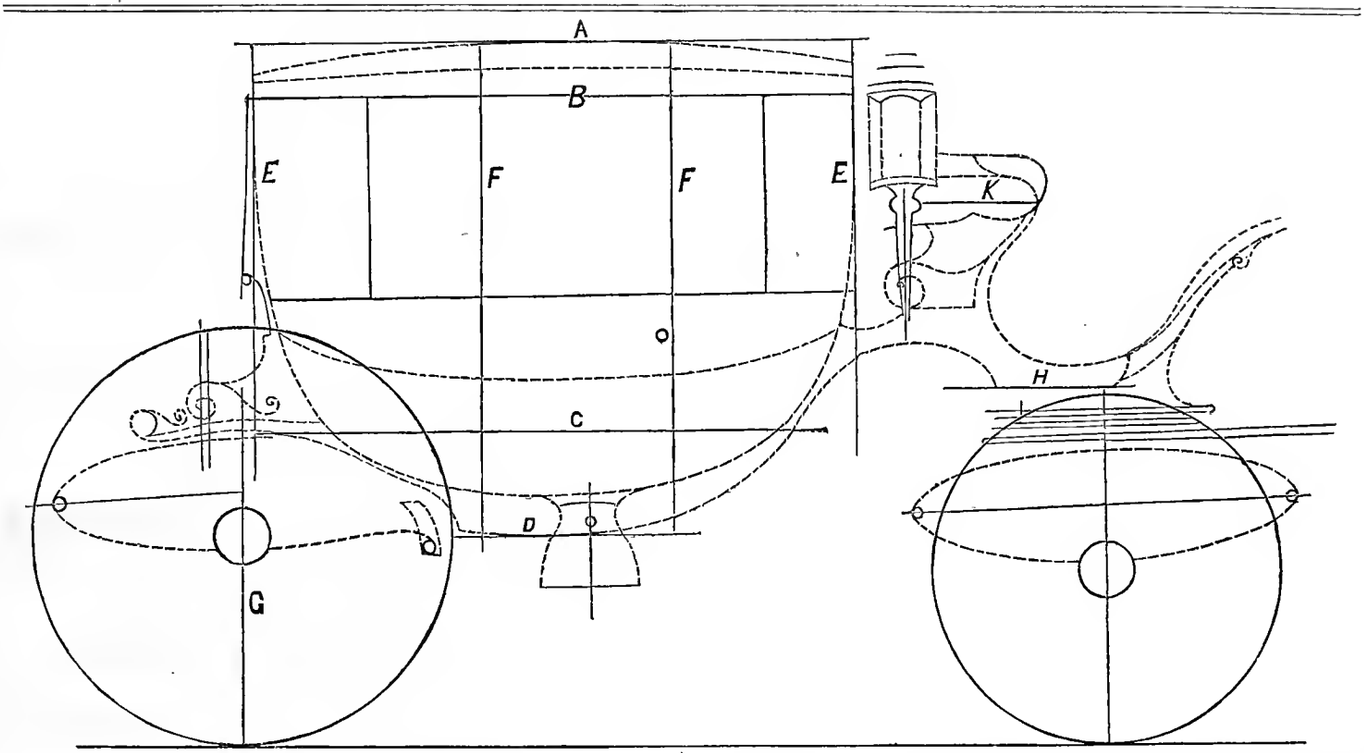
"Julius, was you ever in business?" "In course, I was." "What business?" "A sugar planter." "When was dat?" "Der day I buried dat ole sweetheart ob mine."

An Illinois paper, a short time since, spoke of a fellow who was so very dirty, that the assessors of the town in which he lived set him down as "real estate."

A green-looking fellow hailed the Flushing omnibus driver, as he was dashing down Pearl street recently, "goin' to Flushing?" "Yes," said John, reining up his horse. "Wall, so I thought?" responded the gawky, and passed quietly on.

Punch slanderously says: The sun is called masculine, from its supporting and sustaining the moon, and finding her the wherewithal to shine away as she does of a night, and from his being obliged to keep such a family of stars. The moon is feminine, because she is constantly changing, just like a ship blown about by every wind. The church is feminine, because she is married to the State; and time is masculine, because he is trifled with by the ladies.

If a lady yawns half-a-dozen times in succession, young man, you may get your hat.



For the New York Coach-maker's Magazine.

ON SCALE DRAFTING, AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, OF BRIDGEPORT, CONN.

(*Continued from page* 199.)

LESSON SEVENTH.

This diagram represents a pencil-sketch of a coach ready for inking. A sketch in this state is drawn without the assistance of either sweeps or patterns. Having laid down your square lines, which must be your guides, commence and dot off your sweep to suit the eye. I will here enumerate all the square lines necessary for this draft. Commence by laying down your top line, A; from this line calculate for the bottom line of kant-rail, B, seat-line, C, and bottom line, D, which you will draw parallel with the top line, A. Then divide the kant-rail line off into spaces to suit the size of your quarters and doors, and draw the perpendicular lines, E E, F F. For the center of the hind wheel, draw the perpendicular line, G, keeping the wheel about 3 inches back of the door-joint; then draw a similar line for the center of the front wheel. On this line mark the height of the front bottom. You are to be governed by the height of the front wheel for this front-bottom line, H. For a 3-feet-4-inch wheel, four inches elevation above the bearing at the brakes is all sufficient. From the front-bottom line mark seat-line, K. A center line added for your lamp, and another for your steps, are all that are requisite for your guidance. This drawing, completed, will appear as a draft on one of the plates accompanying the May number of this work.

A HOTEL and livery stable-keeper, at a fashionble watering-place, advertises *sociables* for young people, and *sulkies* for married folks. This is what we would call accommodating matters to circumstances.

INVENTIONS APPERTAINING TO COACH-MAKING AT HOME AND ABROAD.

AMERICAN PATENTED INVENTIONS.

Jan. 18.—MODE OF ATTACHING THILLS TO VEHICLES, etc.—R. B. Prindle, of Coventry, N. Y.: I claim the flange on the bolt or pin, so made and inserted that it cannot be removed when the joint is varied from the position in which the bolt is introduced.

January 25.—WAGON-BRAKE—Daniel Robinson, of Lenox, Pa.: I claim the combination and arrangement of the sliding-frame, H, curved bars, C, attached to the rock-shafts, D D, and passing through the traverse bars, *d*, of the frame, H, and the shoes, E, attached to the ends of the rock-shafts, the several parts being fitted in the truck, or bed, A, substantially as and for the purpose set forth.

February 8.—MACHINE FOR TENONING SPOKES—Webster Thomas, of Oxford, Ohio: I claim the combination of the beds, I and B, constructed as described, with support-piece, I, wedge, V, and the double series of cutters, *d e*, in the same cutter bearer, the construction and operation being as described.

ODOMETER.—Thomas K. Work, of Hartford, Conn.: I claim the curved or segment-weight *m*, pivoted to the arm *l*, which is attached to the pinion *e*, and fitted between the annular ledges, *n o*, substantially as and for the purpose set forth.

[This improvement in the odometer is intended to prevent any inaccuracy in the registration of the distance, by the jolting of the weight, when the vehicle passes over uneven roads.]

February 15.—PREVENTING FRICTION ON AXLES—T. S. Minniss and T. S. Minniss, of Meadville, Pa.: We claim the employment of sectors to avoid friction on rolling or sliding surfaces substantially as set forth.

We also claim the combination of the shaft-sectors, and their adjusters, the whole being arranged, constructed and operating substantially as described.

February 22.—MACHINE FOR BENDING AND SETTING SPRINGS—John Evans, of New Haven, Conn.: I claim, first, the adjustable or sectional bed, formed of the bars, *i*, connected to the weight, *k*, and arranged substantially as shown, for the purpose specified.

Second. The adjustable clamps or straighteners, formed of the strips, *b e*, placed on rails or bars, H, G, and arranged as and for the purpose set forth.

Third. The adjustable or sectional bed formed of the bars *i*, as described, and the adjustable clamps or straighteners, formed of the strips *b e*, placed on the rails H G, in combination with the adjustable dies, M M, arranged to operate as and for the purpose set forth.

CURTAIN LOCK FOR CARRIAGES.—Samuel Marshall, of Wilmington, Del.: I claim the employment of the two metal plates, constructed as described, in combination with the button and button-hole of the carriage and curtain, and with the spring fastening; the whole being arranged and used in the manner and for the purposes set forth.

KEY-BOLT FOR ATTACHING CARRIAGE THILLS.—G. P. Wilhelm, of Bridgeport, Pa.: I do not claim, as new of themselves, either the key-bolt or the spiral-spring, but I claim the manner described of fastening shafts and poles to carriages by the arrangement of the bolt, B b, spiral-spring, *c*, and clips, *c*, arranged and operating as set forth.

RECENT EUROPEAN PATENTED INVENTIONS.

September 17, 1858.—Charles Hadley, Lower Hurst street, Birmingham—Improvements in omnibuses, cabs, railway-carriages, wagons, and other similar vehicles.

October 13.—James Braby, and James Braby, jun., Bridge House Place, Newington Causeway, Southwark—Improvements in wheels, and wheeled carriages, to be propelled by steam, horse, or other power, and an apparatus for retarding the same.

October 25.—Edward Coltam, Lower Belgrave Place, Pimlico—Improvements in the internal fittings of carriages.

William Craddock and John White, Archer street, St. James'—Improvements in the connecting links of harness hames.

October 29.—Peter Wright, Dudley, Worcestershire—Improvements in the manufacture of anvils.

November 2.—John Lancaster, Belfast—A new or improved method of driving and curbing horses.

November 4.—John Oxley, Camden Town—Improvements in carriages and wheel vehicles.

November 6.—William Green, 21 King William street, Strand—An improved harness-trace coupling.

November 16.—John Brennand, Manchester—Improvements in the method of effecting the locomotion of carriages, which improvements are also applicable to other similar purposes.

November 17.—William Clark, 53 Chancery Lane—An improved bit or bridle for horses.

November 22.—Thomas Spencer, Newcastle-upon-Tyne—Improvements in the manufacture or construction of springs.

November 29.—Francois S. P. Michael, 20 Rue de la Chaussee d'Antin, Paris—Improvements in the manufacture of bridles (without bits, and without curb-chains) for riding, driving, or otherwise conducting horses.

George Collier and William Noble, Halifax—Improvements in means, or apparatus for the manufacture of spokes for carriage wheels, which improvements are also applicable to the cutting of wood for other purposes.

Largest Bending Establishment in the U. States.

ISAAC B. KILBURN,

(Formerly Bedford, Crane & Co.,)

MANUFACTURER OF

Carriage Bows, Bent Felloes, Shafts, Poles

And all kinds of Bent Carriage and Sleigh Timber,

Nos. 54, 56 & 58 Mechanic Street, Newark, N. J.

The manufacturer, being himself a practical Carriage Maker, feels that he is well qualified to give general satisfaction to both Dealers and Manufacturers who may favor him with any order for articles in his line.

PROSPECTUS

OF THE

SECOND VOLUME.

The only Magazine of the kind in existence!

Will be Published, about the 10th of May next,

No. 1, VOLUME 2, FOR JUNE,

OF

THE NEW YORK

Coach-Maker's Monthly MAGAZINE;

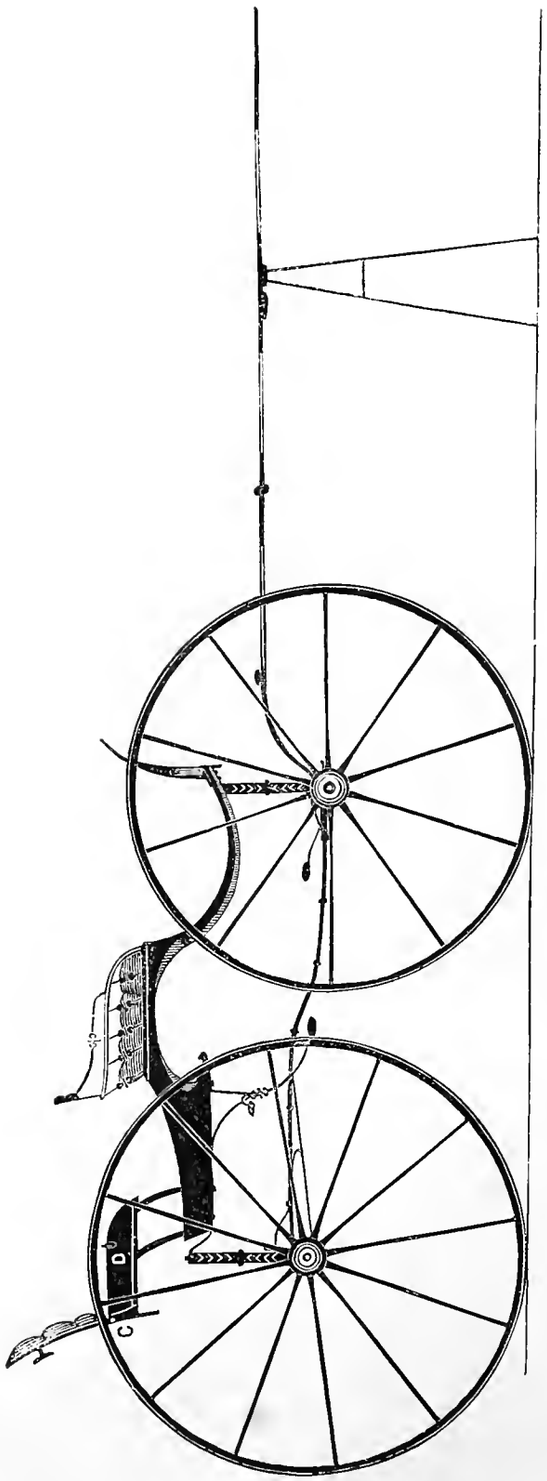
DEVOTED TO THE LITERARY, SOCIAL, AND MECHANICAL INTERESTS OF THE CRAFT;

Embracing Four Beautifully-engraved Plates, on Tinted Paper, useful to Coach-Makers; Twenty Pages of Interesting Reading Matter, Illustrated with Fine Wood Engravings, with the necessary Cover and advertising pages to render the work complete.

To those who have so generously patronized our Magazine in its infancy, and through a season of unexampled business prostration, we take occasion here to return our heart-felt thanks. We think it scarcely necessary to say anything in order to persuade them to continue their subscriptions into a SECOND VOLUME. We rely with confidence on their continued patronage. But there are yet many who are unacquainted with the object and character of this publication. To reach such we depend upon *our* generous friends, hoping that they will extend their liberality so far as to invite *their* acquantances to give us "a lift" the ensuing year.

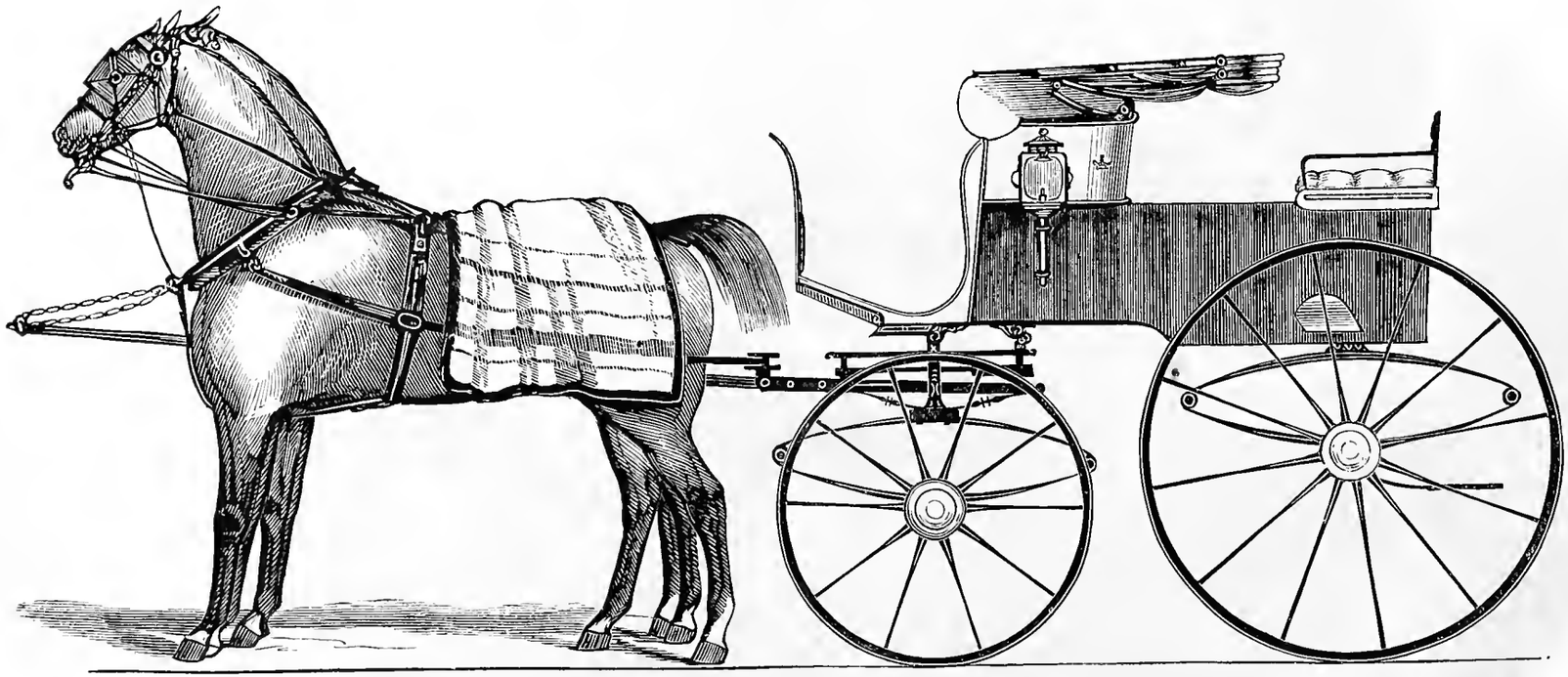
The Publisher would say to all, that he intends to spare no pains in striving to make this Magazine useful to the coach-maker in his *work-shop*, and, in some degree, at least, to instruct and amuse the members of his "*Home Circle.*"

The general features carried out in the first volume will be maintained in the second, with an aim, so far as the mechanical departments are involved, to make it still more worthy of the craft. We have some new and interesting features in contemplation for the future, which we choose to give in performance rather than in promises. Some tell us (we would say this modestly), we have more than redeemed our promises in the past. We hope to deserve as much credit in the next volume.



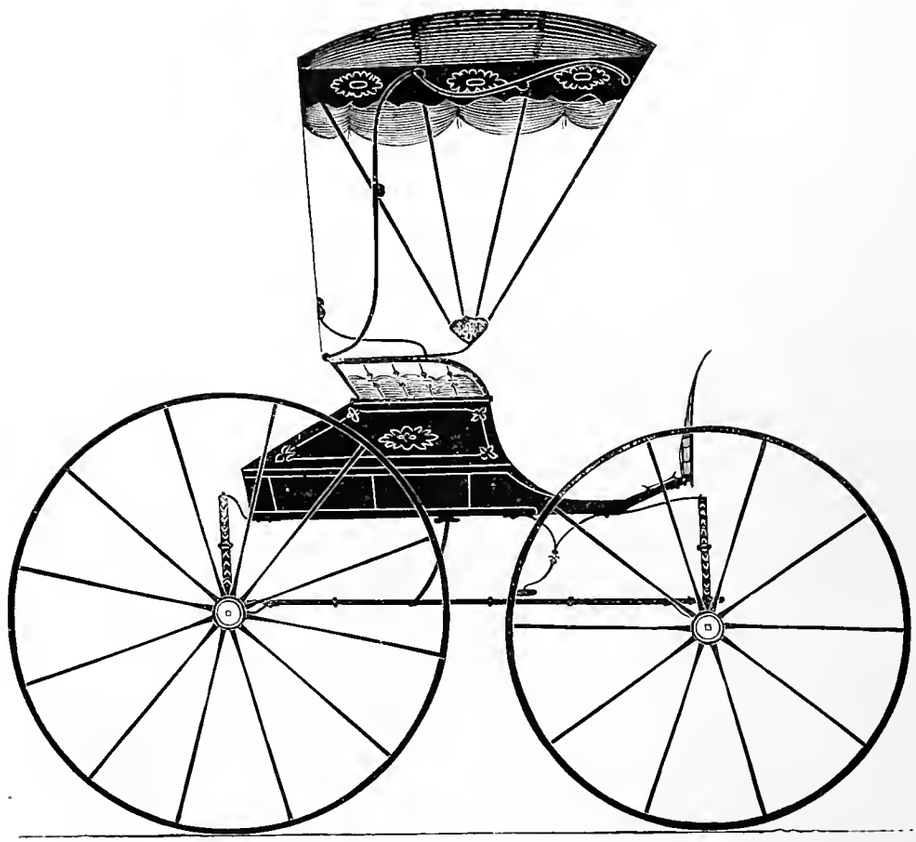
FOLDING-SEAT BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 228.



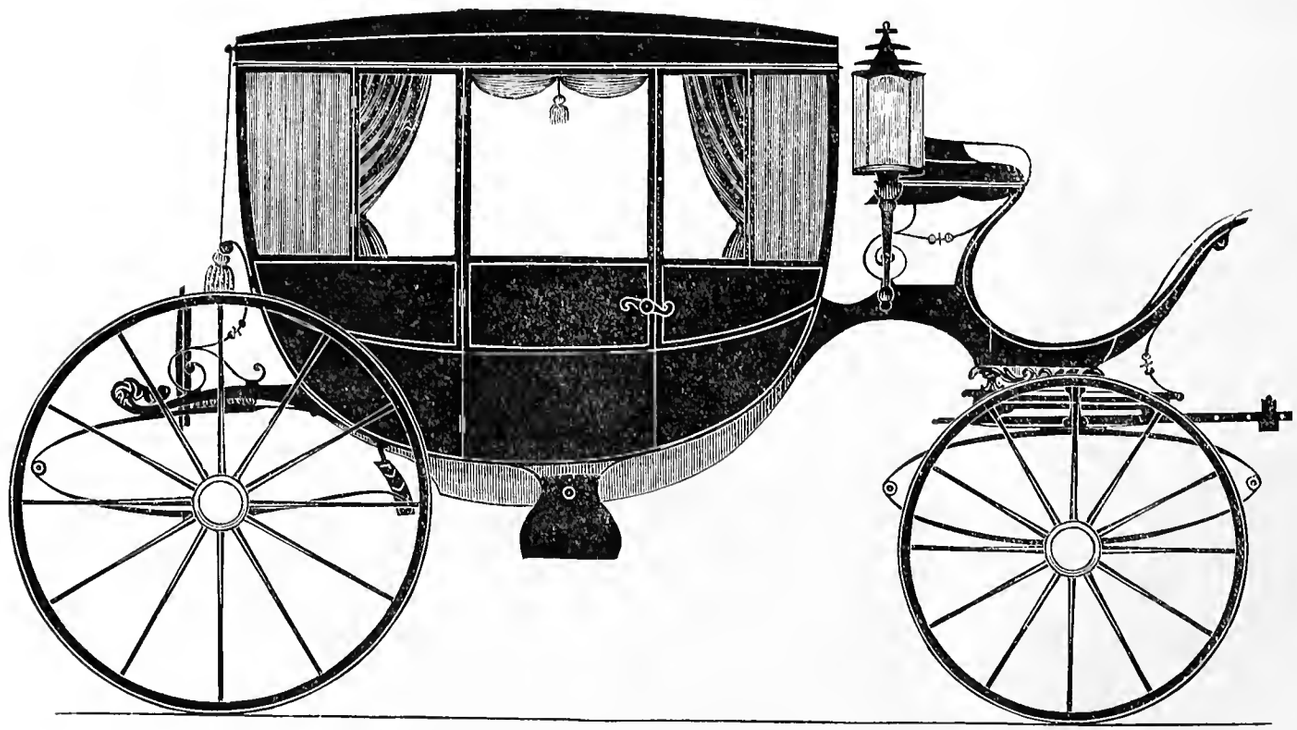
PHÆTON.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 228.



NEW YORK BUGGY.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 228.



COACH.—½ IN. SCALE.

Engraved expressly for the New York Coach-Maker's Magazine.—Explained on page 228

DEVOTED TO THE LITERARY, SOCIAL AND MECHANICAL INTERESTS OF THE CRAFT.

Vol. I. NEW YORK, MAY, 1859. No. 12.

Miscellaneous Literature.

For the New York Coach-maker's Magazine.

THE THREE-FOLD NATURE OF MAN.

BY CHARLES C. KEYS.

No. VII.

(*Concluded from page* 206.)

Finally, in considering the duties which we owe to ourselves, we should keep in view those distinctions by which our nature is recognized, as consisting of three departments, and our duties are consequently divided into three different classes. We should not regard ourselves as entirely physical in our organization, and only as having physical wants to provide for; neither should we restrict our attention to the intellectual nature, as though no other duty was incumbent upon us but that of developing our minds and furnishing them with various knowledge; nor should we subject ourselves to the mistaken and superstitious notion, that the soul only is worthy of our regard, and that all inferior and subordinate interests and duties may safely be disregarded, while, in the spirit of an anchorite, we literally separate ourselves from the world, and proclaim an unauthorized divorce of our affections and attachments from those with whom God has joined us together, and from whom both nature and revelation unite in declaring we shall not be sundered. There is a harmonious dependence and union between all the departments of our being, and we need not let the duties which we owe to the one conflict with those which we owe to the others. The body is not to enjoy our care at the expense of the mind, nor the mind at the expense of the body, nor the soul at the expense either of body or mind. In these respects, the law of nature is the law of God; we should take proper care of the body, as opportunity and means may serve to improve the mind, and diligently cultivate the heart. This law is inscribed not only upon the pages of Sacred Writ, but written in bold and indelible characters upon every part of that material and physical structure which may be denominated "the house I live in."

The beauty and supremacy of our manhood consists in the complete and harmonious development of all our powers. A suppression of any of these powers, or their dwarfed manifestation, destroys the charm, and lessens the dignity of our character, and causes us rather to repel the advances of those with whom we should live in harmony, and whose approbation is a prize worthy to be won. The true ideal of man's perfection, to speak with a figure, is to be found in the skillfully elaborated and chiseled marble, representative of the human form, where every limb is rounded into life, and every posture speaks eloquently of nature, where the human face divine is portrayed in its radiant benignity and in its just proportions, and where every angle, and line, and curve impresses the mind of the rapt beholder, as the incarnation of true nobility and living virtue. Without this completeness of character, our nature becomes abnormal and monstrous, like the mythological sphinx, with the head of a woman, and the body of a lion, furnishing us with riddles difficult of solution, rather than the resolution of those profound and interesting problems which our nature involves.

And whether we consider ourselves as cosmopolitans, or simply Americans, as citizens of the world, or as citizens of the United States, we should seek to blend in our characters all that pertains to this perfect type of humanity. We want to be men, not children; and, while we do not ask you to be angels, it is most reasonable that you should be neither brutes nor fiends, but such as God made you and designed you to be—ready for any employment, qualified for any station, and prepared for any responsibility that may be proper for you as men; strong for the period of crisis and danger, when the souls of other men may quail; devoted to your country's welfare, and exercised with a generous love for your race; diligent in the prosecution of your business, kind to children, social and friendly and forbearing to neighbors, a faithful juryman, an unseducible legislator, an affectionate husband, father, or brother, keeping vigils over the sick, or kindling the morning fire, "not ashamed to carry the baby or a bundle in the street, not likely to jump into the first boat at a shipwreck, not going about, as Robert Hall said, with an air of perpetual apology for being in the world; nor forever supplicating the world's special consideration," instead of making and forcing your own way in so heroic a manner, as that none will presume to oppose your progress; brave in the

presence of a foe; strong to labor; suffering like a man, and, like a man, daring to do what is right, though the heavens fall; reverent towards God, and loving to all. This is the manhood that our age, and country, and world require—full of strength, and daring, and wisdom, and virtue, and consistency.

"When Pompeii was overwhelmed with a volcanic eruption, the whole population in alarm ran hither and thither, some to the heights, some to the depths, some to the streets; but there was one man who was still!—the Roman sentinel. Neither the rending heavens, nor the trembling earth, nor the stream of burning lava pouring at his feet, moved him from his post—there he was found, a thousand years afterwards, standing erect, clasping his arms just as his centurion placed him." Brave, stern man! But yours is a more noble calling. Yours the high vocation, not of a soldier, but of a man—to stand in true nobility, and in your full round manhood, amid all the changes and convulsions which are incident to the world in which you live—to develope your own humanity, to bring out your own powers, and to be true to all the instincts and endowments of your superior nature, not only as a physical, but as an intellectual and moral being. So may you brave the fiery flood which, in its angry course, shall engulf and destroy all of a less stern mould, and leave you as the permanent and petrified monuments of true consistency and enduring worth.

For the New York Coach-maker's Magazine.

SELF-RELIANCE.

BY JOHN A. ROCHE.

WEALTH, honor, influence, are not so much in our circumstances as in ourselves. Our own energies must be roused; our hidden resources brought out. There is a feeling of independence that is itself greatness. Men should possess it, and show it. It should make us superior to a thousand discouragements. The man that is self-made is really made, and will not be ashamed of his making. If he is not covered by the mantle of another's glory, he may fabricate one for himself, that may be a nation's pride. No man should make difficulties, that he may overcome them—time and muscle are too precious for that. It is not demanded that we exhaust our strength upon a windmill; it would not recompense our pains. But we must not forget that mind is greater than matter. Difficulties make man. Work is before us, and much of it; but it is good work, work that pays well—the discipline that it imparts, the resolution that it creates, the perseverance that it compels, are all of great value to a life of any length. They tell upon our future history; they tell upon the good of mankind. But let us not despond—what though difficulties rise like an army, say, "Shall such a man as I flee?" Scale the mountain, bridge the gulf, open the highway in the wilderness—take and verify the Hungarian's motto—"There is nothing impossible to him that wills." It was worthy that mighty general. Envious ones will try to pull you down from an eminence—to prevent your gaining it, rivals will dispute every inch of your advance. Let opposition do this good; to call out the man of the man, that is in the man. Just as well, much better say, "I intend to succeed." The firm resolve will have much to do with the first result. If there is any part of capital that you lack, be sure that it is not *resolution*. This any man can *have*. It is his fault, if he do not *maintain* it. Nor will you be without encouragement—the high-minded, noble-spirited, the mighty men in our midst, will cheer you on to greatness and to glory. Envy, jealousy, with "snaky heads" may hiss around you, but it is at the base of the mount of immortality. There the air is calm, the sky is clear, and the companionship pure as it is exalted. Faith and labor will dispel the haze that now obscures your horizon. Struggle through this gloom, as the sun does through darkness. What if the orb of day be eclipsed for a season—he will yet gain the zenith, and pour his golden beams upon the lands below, as from a high eminence we may hereafter "bless those who would now curse us." Never forget—and in this thought alone there is a tower of strength—*God will bless a just and sanctified ambition.*

A VISIT TO AN ENGLISH CARRIAGE MANUFACTORY.

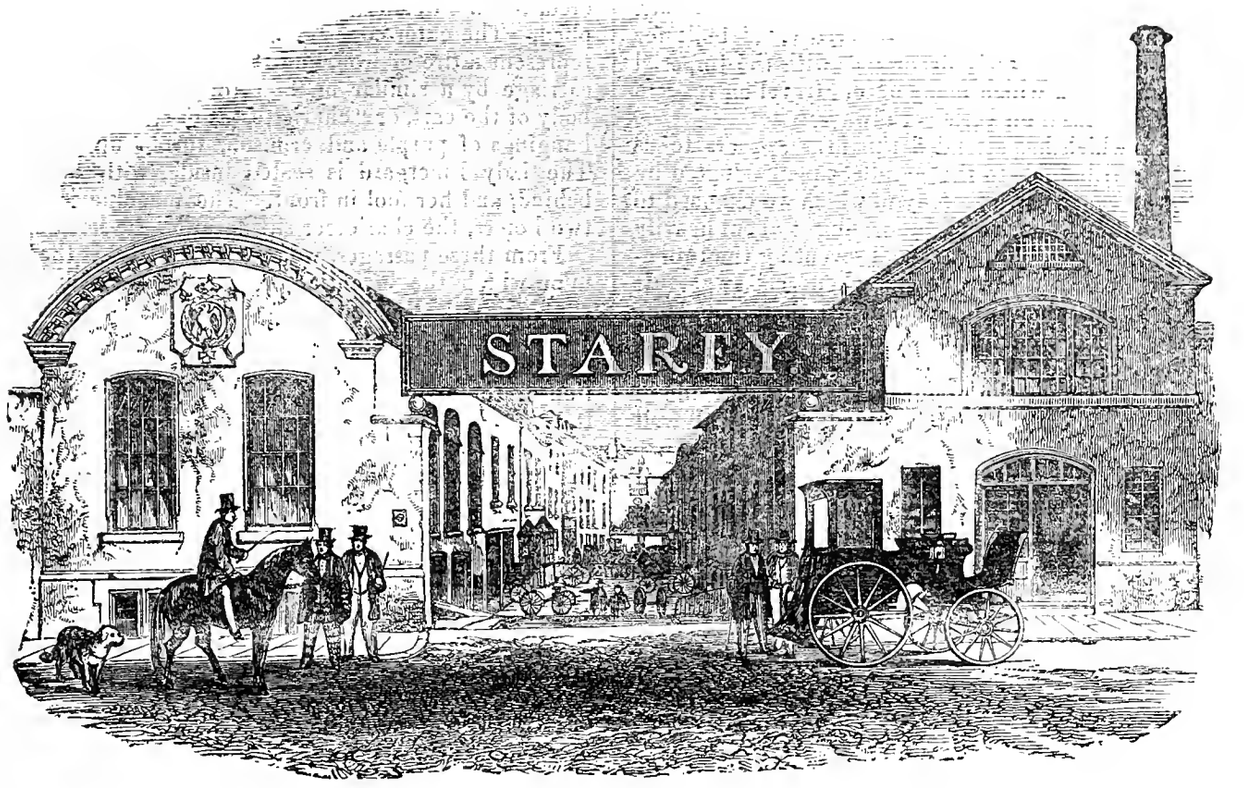
AN attentive correspondent and subscriber in England has favored us with the following description of one of the finest carriage manufactories in that country, which we have no doubt will interest the American coach-maker. The same mail brought us several drafts, which we intend to present to our readers in a future number, among them is the Cottage Phæton. We are also in receipt of the first annual report of the "Coach-builders' Benevolent Institution," from which we hope to make such extracts, for our June number, as will interest our friends.

To the Editor of the New York Coach-Maker's Magazine:

This establishment is one of the oldest as well as the most extensive and complete private carriage manufactories in England, employing about 120 skilled artificers, steam power, and newly-invented machinery suited to the particular requirements of the business.

The conductors are eminently *practical* men, having worked as journeymen at the different branches: and the business is divided into seven main departments, under the special direction of experienced foremen. Differing from the great majority of coach-builders in Great Britain, they *begin* and *finish* a carriage throughout, everything being done on the premises under careful personal inspection, thus giving them a great advantage over those in the same trade, who buy the different parts of a carriage from what are called "piece masters," and merely *put them together;* the saving of these profits, and the employment of so much machinery to assist skilled labor, enables them to turn out work equal, if not superior, to the best houses in the trade, at a very great reduction from their prices.

Particular attention is paid to the selection and seasoning of the wood employed in construction; large drying sheds, filled with matured timber, await the skill of the workman, and thus prepared withstands the effects of even the very hottest climates, to which these carriages are often sent. This enterprising firm is said to have introduced a greater number of improvements and novelties in carriages than any of their competitors. One carriage is particularly worthy of mention, having an *invisible* head, and called *The Cottage Phæton*, certainly the most. comprehensive carriage in existence, for it turns into *three* distinct vehicles in a simple and effective manner. For some time past it has been exhibited, with several other new descriptions of



VIEW OF STAREY'S CARRIAGE MANUFACTORY, NOTTINGHAM, ENGLAND.

carriages, at the Crystal Palace, Sydenham; and, as we find by the newspapers of the day, attracted the attention of the Queen and her illustrious Consort, the latter of whom changed the carriage into its different forms, and explained to her Majesty the principle on which it was built. The Queen expressed herself as much pleased and surprised at the great ingenuity and skill displayed in its construction and design.

Mr. Starey has also the credit of introducing the cheapest carriage ever offered to the public, viz., a *Basket Carriage* for ten guineas, of which we understand they have made upwards of six hundred.

Every style of vehicle, from the plainest, to the handsome and luxurious pair-horse carriage, can here be seen in different stages of building; and the proprietor has great pleasure in showing visitors through the different departments, and in explaining to them his peculiar and cleverly-contrived machinery.

As the result of a wide and varied experience, both at home and abroad, we here see the peculiar excellences of the ENGLISH, FRENCH and AMERICAN carriages combined. Beauty, of form and color, is united with lightness and strength, in an artistic manner, the whole being carried out with a purity of taste and attention to detail rarely to be met with. Simplicity and neatness appear to be cultivated—mere display avoided, as vulgar—the "real" and the "subdued" (as most permanently pleasing) being generally adopted.

It appears that however plain a carriage may be, their object is to have it the best and most perfect of its *kind*, and characteristic in its style; and it was explained to us, that *truth* in construction (as a carriage is *drawn*, not carried by the horse) is of really more importance, as regards lightness, than the actual weight on a machine. The latter however is guarded against, by the material used being of the greatest possible *tenacity*, so as to dispense with bulk.

We were also much struck with the great care taken to avoid the vibratory motion, so disagreeable in the ordinary make of "elliptic" spring carriages, now so much in fashion. To do this, India-rubber and leather, in a variety of patented forms, are connected with the usual steel springs, and appear most effectual in isolating the body and absorbing the "jar" from the road, thus rendering the motion of the carriage soft, quiet, and even, both with *light* as well as heavy weights—a great desideratum, conducing as much to the *durability* of the carriage as the *comfort* of the rider.

At the Universal Exhibition of Paris, in 1855, Mr. Starey was particularly successful, as he is reported to have obtained as many orders as all the other English builders put together. He had the high honor of being awarded one of the *two First Class Prize Medals* given by the International Jury, the leading house in London obtaining the other. In consequence of the peculiar excellence thus shown, he was appointed coach-builder to the Emperor Napoleon, and has since that time built for him and the Prince Napoleon four new carriages, as noticed in the ILLUSTRATED LONDON NEWS of December 8, 1855.

The Special Correspondent of the *London Times*, in his review of the Paris Exhibition, September 20, 1855, appears to have thought that Mr. Starey's carriage was the only one deserving individual remark, as he named no other; and the Earl of Shelburn, M. P., the Chairman of the International Jury, particularly praised it in his Official Report to the House of Commons.

Thus it is apparent that unusual skill in any business (though situated upwards of 100 miles from the great centre of trade and fashion) will command attention. Carriages are here made for Australia, Russia, India, South America, &c., besides a great many sent to various parts of

the United Kingdom, for the conveyance of which Mr. Starey has the exclusive use of "a covered van," built for the purpose, and handsomely decorated with the Imperial Arms of France, &c., which many of our traveling readers have doubtless noticed on various railways.

The success which has attended this firm appears to us to be greatly attributable to the excellent plan adopted by them of *testing* every carriage (one of which we chanced to witness at the time of our visit), by driving it about heavily weighted previous to painting, thus preventing the probability of any defect in construction when sent away. It may be also in part due to the confidence the public have in the certainty that all agreements they enter into will be conscientiously carried out.

We annex a view of the premises, showing one side of the splendid new show-room lately added, which will well repay a visit from any of our countrymen.

Mr. Starey has always carriages on view at the Crystal Palace, Sydenham, in addition to his stock here.

COACH-MAKING HISTORICALLY CONSIDERED AND INCIDENTALLY ILLUSTRATED.

CHAPTER XII.

The invention of Carriages claimed by four nations—Viewed in the light of history, *this* "invention" vanishes—Coach-naturalization in France a difficult matter—The "chare" introduced into England—The "innovation" struggling with difficulties—Carriages *forbidden* to the ladies in France.

Hae omnia magno studio agebant.

As, in Homer's case, many cities claim the honor of having given him birth, so, in regard to pleasure carriages, no less than four nations lay claim to their invention. These are, Italy, France, Spain and Germany. To any one who has attentively read our series of articles, recording the different contrivances embraced in the general term, vehicles, and invented centuries before, *the honor*, if it be an honor, would seem to be (as the Yankees express it) "whittled" down to a very small point. With minds divested of all prejudice on this subject, let us examine the matter in the light of history.

The earliest record we have of the *revival*, or introduction, of pleasure-carriages, in our acceptation of the term, is founded upon Beckman's authority. He states, that when Charles of Anjou entered Naples, in 13—, his Queen rode in a *carretta*, gaily decked out, and covered outside and inside with sky-blue velvet, interspersed with golden lilies. The queen soon found imitators in France. This is inferred from the fact that, in 1294, Philip the Fair issued an ordinance, which Beckman says is still in preservation, forbidding the use of "cars" by the wives of citizens. Adams insists that these "carrettas" above mentioned were identical in form with these "cars," "chares," or the later "charat," though differing in adornment. Although "carretta" and "sky-blue velvet" and "golden lilies" seem more fitting to describe the car of Cinderella, or of some radiant genius in a fairy pageant, there is difficulty in believing that all the above-named vehicles had one universal family likeness, both in name and construction, to the common broad-wheeled cart.

In the "Anciennes Chroniques de Flandres" there is a manuscript, in beautiful preservation, dated 1347, illustrating the flight of Emergard, the wife of Selvard, Lord of Rousillon. The carriage in which she is seated is not only richly covered, but the details of its construction are accurately supplied. The outer edges of the wheels are colored gray, to represent a tire of iron, and the horses are attached to the carriage by a similar method to that now in use. The body of the cart, or "chariette," is of carved wood, and the hangings of purple and crimson, turned up in the centre. The lady Emergard is seated inside, with an attendant behind, and her fool in front. The machine is drawn by two horses, the charioteer sitting upon the left horse.*

From these passages, we see how slight is the evidence upon which the invention of carriages is claimed by the contending continental European nations. In connection with our previous history, we can only admit *the invention* to be a mere revival in the uses of vehicles, and a revolution of their construction, and "the honor" to rest with Italy.

It was some time before carriages became *naturalized* in France, as the people had to contend against interdictions from the government. We are told that those two persons who were so daring as to take a seat in a coach were followed by hootings and ridicule; and such was the prejudice against them at the time, that in derision they were called privies. Sauvel relates that these early *machines* were suspended upon ropes, the best upon straps—and entered by means of an iron ladder! But we are getting a little ahead of our history.

It was not long before the "chare" was introduced into England. In "The Squyr of Low Degree," supposed to have been written before the time of Chaucer, the father of the Princess of Hungary promises her that if she would forget him for whom her heart

> "—— was grieved, as only maids could be,
> That love, and loose like her, a squire of low degree,"

that

> "To-morrow we ride with all our train,
> To meet our cousin of Aquitaine;
> Be ready, daughter, to go with us there
> At the head of the train in *a royal chair*,
> The chair shall be covered with velvet red,
> With a fringéd canopy overhead,
> And curtains of damask, white and blue,
> Figured with lilies, and silver dew,
> Purple your robe, with ermine bands;
> The finest fur of the northern lands;
> Enamelled chains of rare devise,
> And your feather a bird of Paradise!
> And what will you have for a dainty steed?
> A Flanders mare of the royal breed?
> An English blood? A jennet of Spain?
> Or a Barbary foal with a coal black mane?
> We still have the Soldan's harness, sweet!
> The housings hung to the horses feet,
> The saddle-cloth is soon with moons,
> And the bridle bells jingle the blythest tunes!"

But, as has been the case with many "maids" since, whose "rosy cheeks have been by the soft winds kissed," the princess preferred her "squyr of low degree" to all the enjoyments substituted for that of his company.

> "But I would rather have," says she,
> "My loving squyr of low degree.
> Not a gaudy *chair*, nor days of chase
> Reward me for his absent face."

In England, as in France, carriages came into general use very slowly at first, but the prejudice against their use, which met them in France, does not appear to have fol-

* English Pleasure-Carriages, London, 1837, p. 30.

lowed them into England. Froissart, in chronicling the return of the English from Scotland,* in the reign of Edward III., speaks of the "lenis charettes," which are supposed to resemble the "chare" promised the Princess to forget her "Squyr of Low Degree."

These *chares*, *charettes*, or under whatever name they were known, came into general use with a great struggle. This arose, in a great measure, from the prejudices that at the time existed against any innovation, ministering, as was then thought, to personal indolence, a "prejudice," judging from the reports of later tourists, which seems to have "died out," for a more lazy set than some of the people of the South of Europe cannot well live. Even the nobility, who had meetings of the State to attend to, abstained from riding in these "new-fangled ideas." One of the most curious documents relative to this time is to be found in "L'Art de menuissier," by Roubo. In speaking of a carriage brought from the King of Hungary, as a present to the Queen of Bohemia, which at the time excited the wonder and admiration of the Parisians, he describes it as "*branlant* et moult riche." What could "branlant" (quivering or trembling) mean, but that it swayed to and fro, from being suspended?

From this time, covered carriages were used to a limited extent in France, as they were forbidden to the ladies, as tending to promote luxury. "As time went on," says Adams, "people became more philosophical; and one evidence of this was, in preferring the ease that does no injury to the self-denial that does no good; or, rather, the ease that does good to the self-denial that does injury. Covered carriages began to obtain more commonly, though at first their uses were confined to long journeys, or times of public ceremony." This subject, requiring several chapters to carry out our original plan, will be continued and completed in the second volume. S.

CONGO IDEA OF HOOP SKIRTS.

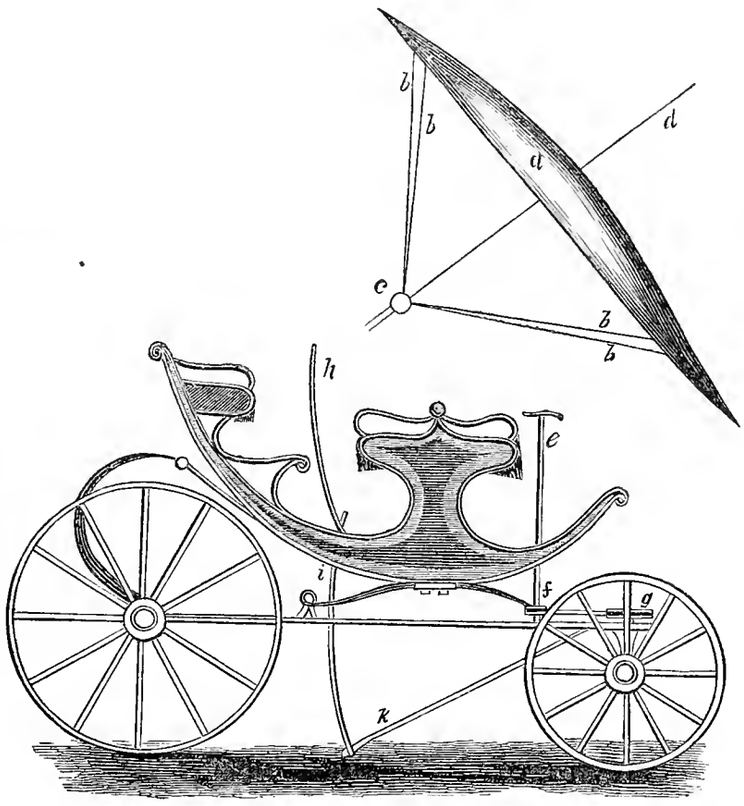
SOME of the Wanderer's Africans are in Mississippi. The *Vicksburg Sun* says:

"We do not think they are valuable, from the fact that we believe no white man would like to oversee a set of such hideous, senseless-looking creatures; besides, it would, in our opinion, be a great deal of trouble to keep them at work. They can ask for tobacco and whisky, and perhaps chew the former and drink the latter, but they can do nothing else. They know nothing about the use of clothing, and would as soon place a pair of pants on their shoulders as their legs. One of them has formed a great fancy for umbrellas, and when a couple of young ladies approached him, dressed in the present extensive fashion, he flung down his hoe and pursued one of them with all possible speed, and as he came near her he vigorously grabbed at the skirt of her dress, but before he succeeded in getting hold of it one of the attachés of the Mississippi Central Railroad succeeded in knocking him down. Mr. Montague then took him in charge, and asked him in his own gibberish what he pursued the lady for, when he replied that she had an umbrella under her dress and he wanted it.

* In Rymer, under date of July 4, 1327, there is an order from Edward III. to William d'Irland, to provide carriages for Sir John de Hainhault, on his visit to England, &c.

THE CHARVOLANT.

IN 1826 a patent was obtained in England by Col. Viney and G. Pocock, for a carriage, to be impelled by the



THE CHARVOLANT.

force of the wind acting upon one or more kites, attached to the carriage, which they denominated the "Charvolant." It is represented in the engraving at the head of this page. The kite, *a*, is jointed in the middle, that it may be folded up, and carried or stowed away with greater facility. *b*, *b*, *b*, *b*, are four cords for regulating the position of the kite, and to assist the steerage; they are brought together by passing through the dead-eye, *c*, whence they proceed to the carriage, where they are regulated to the proper lengths by the persons therein. By shortening the cords on the right-hand side of the kite, the car may be turned to the right, and by shortening the left-hand cords it will be turned to the left. But the Charvolant, by the cross handle, *e*, and the stem, *e f*, which acts on the axis of the fore wheels by means of an endless band or cord, passing about a pulley, *f*, and fixed on the lower end of the stem, *e f*, and the pulley, *g*, fixed on to the bed of the axletree, of the fore-wheels. The machine is stopped, or its motion retarded, by the drag, *k*, which is attached to the perch by a spring, to keep it off the ground till it is required to retard the motion, or to stop the carriage, when the fluke end is pressed into the earth by the lever, *h*, acting on the connecting piece, *i*. The patentees several times exhibited a carriage similar to the above, in Hyde Park, and we believe performed a journey from Southampton to London with it, but we do not recollect the particulars. The scheme is not altogether original. Dr. Franklin employed kites to assist swimmers, and was of opinion that with such aid a man might swim across the channel from Dover to Calais. Attempts have also been made, before the present, to move both boats and cars by the same means; but we

believe the present is the first attempt to trim or regulate the position of the kite according to the direction in which the carriage is to move.

The Home Circle.

For the New York Coach-maker's Magazine.

WALKING IN THE RAIN.

BY LUA DELINN, OF CINCINNATI, OHIO.

After waiting for sunshine,
And waiting in vain,
I was wearily plodding
My way through the rain.

And, looking about me
For something to cheer,
I saw, just before me,
Three sisters draw near.

My eye, glancing on
In the path that they trod,
Saw that one, and one only,
Was walking dry-shod.

To her feet there was clinging
Of earth not a grain,
And her garments had gathered
Upon them no stain.

But lightly and smoothly
She glided along,
With a smile like the sunshine—
A voice as of song.

The others were clogged
With the mud on their feet;
Their robes, all discolored,
Trailed low on the street.

And, wearily, gloomily,
Toiled they, the twain,
With faces as dark
As the clouds that bring rain.

O! are there not many,
Full many, who toil
Through life's weary journey
Thus clogged with earth's soil:

And thus through life gliding,
Some sing as they go,
Nor ever once sully
Their vestures of snow.

PRESENCE OF MIND.

Presence of mind may be described as the power of determining what is fittest to be done upon any sudden occasion, and under adverse circumstances, and of carrying the design into immediate execution with such success as to lead one to suppose it an action of calm deliberation. It is, in short, the union of rapid thought and self-command. This power is possessed by individuals in very different degrees. Minds are so diversely constituted, that we often see the same circumstances producing quite opposite effects. Thus an emergency, that totally unnerves one man, is just sufficient to call the powers of another into full activity. Whilst the former cannot act at all, but seems reduced to a state of mental paralysis, the latter applies himself with calm energy to the difficulties of the case, and escapes the perils that appeared inevitable, by an intuitive selection of the only path that could lead him out in safety. Presence of mind is more generally diffused amongst men than women, but, perhaps, the most striking isolated examples are told of females. Most people have heard of the mother, who, seeing her infant so near the edge of a precipice that the slightest advance would hurl the little creature to destruction, had the presence of mind to suppress the scream of alarm that was on the point of breaking out. Simply whispering the little creature's name, and at the same time baring her breast, she drew it from its dangerous position into the safe haven of her arms. When presence of mind is combined with fortitude, the compound is very admirable: and there are few things that show, in a greater degree, the power of the mind over the body. The following circumstances, which took place a few years ago in an English county, are a pointed illustration of this unusual combination of qualities:

"A young couple, named Aubrey, inhabited a tolerably large house in the village of——, Norfolk, Eng. The house —an old one—was built in a garden of considerable size, and had no other occupants than the gentleman and lady just mentioned, their infant, rather more than a year old, and a single female domestic, who had not been very long in their service. Every evening at nine o'clock a silence the most complete reigned throughout the village, at ten the lights in the different houses began to be extinguished, and in a short time no ray disturbed the blank darkness. It must have been a very extraordinary circumstance if any steps were afterwards heard in the street. Judge, then, of the utter solitude of a house screened by elms and sycamores, and standing three or four hundred yards from the public way. One evening, in the month of November, Mrs. Aubrey was in the house, awaiting the return of her husband, whom some affair of business had called away in the morning, to a town about six miles distant. He expected to receive a considerable sum of money in the course of the day, and his wife had prevailed upon him to take a pair of pistols, as he anticipated being detained until after nightfall. About six o'clock in the evening Mrs. Aubrey went up stairs, accompanied by the servant, for the purpose of putting the child to bed. The room was on the first floor, a large apartment, looking into the garden. The wainscot darkened by time, the heavy furniture, some family portraits, with sedate countenances and in ancient costumes, gave the room a somewhat gloomy appearance. Opposite to the chimney there was a deep recess, in which stood the bed; and near this was placed the child's cradle. The curtains were drawn, but one corner had caught by accident on some piece of furniture, and a post of the bed was exposed; a fine massive piece of carving, on which some cabinet-maker of yore had expended no slight amount of skill and patience.

"The night was dark and melancholy, quite in character with the time of year. Gusts of wind rattled on the windows, dashing the rain violently against the glass. The trees in the garden, bending under the sudden currents of air, occasionally struck the house-side—a gloomy and monotonous concert this—and no human voice mingled in it to promise assistance in case of need. Mrs. Aubrey seated herself on a low chair at a corner of the hearth. The light of the fire, and that of a lamp placed on the chimney-piece, striking some objects in full, and leaving others in darkness, made all kinds of strange effects by their opposition or combination. The child, which fully occupied her attention, sat on her knee, whilst the servant executed some commands of her mistress at the other end of the room

Being about to complete the child's readiness for its couch, the mother turned towards the cradle to see that it was prepared, and just at the moment a bright flame, shooting out, threw a strong light upon the recess. Conceive, if you can, her astonishment, and the start she gave, when, under the bed, and at the place where the curtain had been lifted up, she perceived, as plain as ever she saw anything in her life, a pair of thick clouted boots, in such a position that it was evident they contained feet. In an instant, a world of thoughts rushed through her brain, and the utter helplessness of her situation flashed upon her. It did not admit of a doubt that a man was there with some evil intention, either to rob or murder. Her husband would probably not reach home before eight, and it was then scarcely half-past six. Mrs. Aubrey, however, possessed sufficient command over herself not to do what a thousand other women would have done, namely, fall to shrieking. To all appearance, the man had reckoned upon staying where he was for a considerable time; perhaps he had intended to remain until midnight, and then carry off the money that Mr. Aubrey was to receive; but, if obliged to come out of his lurking-place now, he might revenge himself upon the two defenseless women, and stop all information of theirs by putting them to death. Then, who could tell? perhaps the servant herself might be in league with the fellow. Indeed, there had been of late certain grounds of suspicion, as regards the girl, which Mrs. Aubrey had disregarded, but they now forced themselves on her mind. All these reflections occurred to her in much less time than I have taken to put them down.

"She came to a determination at once. She first thought of some pretext to get the servant out of the room: —'Mary,' she said, with as steady a voice as she could assume, 'you know what your master will like for supper; I wish you would go and make it ready. He will be pleased, I am sure, that we have thought of it.'—'Will you not need me here, as usual, ma'am?' inquired the girl. 'No; I can do all myself, thank you; go and cook as nice a supper as you can; for I am sure my husband ought to have something nice after a long ride, and in such weather.' After some delay, which doubled her mistress' anxiety, although she endeavored to repress it, the servant quitted the room. The sounds of her footsteps died away on the stairs, and then Mrs. Aubrey truly felt herself alone—yet the two feet remained there, in their shadowy concealment, without stirring. She kept near the fire, holding the infant on her lap, now and then speaking to it, but only mechanically, for she could not remove her eyes from that horrible sight. The poor child cried to be at rest, but the cradle was near the bed, and under the bed were those frightful feet—it was impossible to go near them. She made a violent effort, however,—'Come, then, darling!' she murmured: and lifting the child in her arms, and supporting herself on her trembling limbs, she went towards the cradle. She is now beside the feet!—she places the baby in its little nest; concealing, as well as she can, the tremors of her voice, she rocks the cradle in time to the song she usually sings. All the time she sang, she kept fancying a dagger was lifted up to strike her, and there was no one to succor her. Well, baby fell asleep, and Mrs. Aubrey returned to her seat near the fire. She durst not quit the room, for that might excite the suspicion of the man, and the servant, who was probably his accomplice; besides, she wished to remain near her infant. It was now no more than seven—an hour —still a full hour before her husband would reach home! Her eyes are chained, by a species of fascination, to the two feet; she cannot direct them to any other object. A profound silence reigns in the room; baby sleeps peacefully; its mother sits motionless—a statue; her hands crossed on her lap, her lips half open, her eyes fixed, and her breast has a fearful tightness across it.

"Now and then there was a noise without in the garden, and Mrs. Aubrey's heart leaped within her, for she imagined it announced her husband's arrival and her own deliverance. But no, not yet; she was deceived; it was merely the sound of the wind, or the rain, on the trees. She might be the only being in the world, so deep and mournful was the silence. Every minute seemed an age. Look! look! the feet stir. Is the man coming out of his concealment? no, it was nothing but a slight movement, perhaps involuntary, made to ease an unpleasant position. Again the two feet are quiet.

"The clock is audible once more, but it is only to chime the half hour. Half-past seven; no more than half-past seven! Oh, how full of anguish was every minute! Repeatedly she addressed prayers on High for a period to this hideous suspense. Upon the chimney-piece there was a book of religious meditation; she reached it, and tried to read. In vain! her eyes wandered off the page continually to see if the clouted boots were still under the bed. Then a new source of anxiety shot through her head—what if her husband does not come after all! The weather was bad, and his parents, who lived in the town whither he had gone, might prevail upon him to remain with them over night. She would not be astonished if he complied, especially as he had a good deal of money about his person. Heavens!—what if he come not at all.

"Eight o'clock has struck, and there is no arrival. The possibility her active brain suggested becomes every moment more and more probable. For two hours did this agonized female bear up against her thoughts, but at length it became hopeless to hope. Hark! is that a noise? She has been deceived so often before, she is afraid to believe her senses, and, yet, this time there is no deception. The entrance-door opens, is closed; steps come along the lobby, and mount the stairs; the room door turns on its hinges. Yes, 'tis he!—it is her husband! But if it had been a stranger, he would have seemed a messenger from heaven. Well, in he walked, a fine athletic figure. Down go the pistols upon the table; off comes the cloak, thoroughly soaked, I can tell you; a happy man was he to see all he loved dearest in the world. He stretched his hands to his wife, who grasped them convulsively; but, exercising her wonderful self-command once more, she stifled her emotion, and, without uttering a word, she placed a finger on her lips, and pointed with the other hand to the two feet. If Mr. Aubrey had doubted for a moment what to do, he had not deserved to be the husband of such a woman. By a sign, he made her comprehend his meaning, and then said, 'Just wait one moment, my dear wife; I have left my portfolio down stairs, I will step for it.' He was not two minutes absent; he came back with a pistol, the charge of which he had examined. He advanced towards the bed, and then seized one of the feet with his left hand, whilst with his right he held the pistol, ready to fire in case of need.

"'If you resist,' cried he with a voice of thunder, 'you are a dead man.'

"The person to whom the feet belonged did not seem inclined to put this contingency to the test. He was drag-

ged into the middle of the floor, crouching under the pistol that was pointed at his head. He was then searched, and a poinard, carefully concealed, was found upon him. He was a thorough scoundrel in his appearance, and he confessed to have been in league with the female servant, who had told him he might expect a rich booty that night. All this time the infant was never quite awakened.

"Both the criminals were handed over to justice; both were convicted upon trial, and punished. Notwithstanding Mrs. Aubrey's temporary courage she was attacked the same evening with a violent nervous disorder, and some time elapsed before it quite left her."

Pen Illustrations of the Drafts.

For the New York Coach-maker's Magazine.

FOLDING-SEAT BUGGY.

Illustrated on Plate XL.

THIS vehicle was originally designed to be made without a top, and as such it appears on the plate; but there can be a shifting top put to it very readily. There is some swell to the top of the body, so that water may run off the irons which support the back-seat. It may very readily be seen how these are arranged. The lid is hinged on the seat at C; D is a little spring or catch, into which the lock fastens, and confines the lid to the seat. When the lid is pushed down and closed, it has the appearance of a one-seat buggy. The style of this vehicle is very common, but the arrangements of the back-seat are entirely new. I hope you will excuse the draft, for I am not an adept at drawing; I shall endeavor to furnish a better one next time.

Yours, &c., A COACH-MAKER.

PHÆTON.

Illustrated on Plate XLI.

THE phæton, engraved on the above-named plate, has been copied from the *Mercure Universel*, of which our friend, M. Guillon, is designer. The front seat is of the Stanhope type. It is seen in the draft as a two-seated vehicle, but the back-seat is calculated to turn over, and thus make a one-seat carriage.

The draft represents what we would denominate a heavy job, better suited to European than to American taste, but the ingenuity of the craft here might very readily re-model it so as to conform to our ideas of what constitutes a light and graceful vehicle. The design is so simple, and the carriage itself so easy to build, that there is no necessity for entering into lengthened details.

The reader, who is familiar with the subject, will not fail to notice that the harness trappings in France differ in several respects from our own, particularly in the substitution of chain for pole-straps.

NEW YORK BUGGY.

Illustrated on Plate XLII.

IN our June No. (page 9 of this volume) we described a fashionable New York Buggy. No other kind of buggy has been popular here the past year. As something of a change, we give the *latest cut* which has appeared in the market, and is not only a change, but is also a great improvement over the old style of open buggy. The reader will observe that in it are combined the fashions of 1857 and of 1858, and, by substituting a leather boot for a part of the side-panel, as seen in our draft, a buggy can be made much lighter than after last year's pattern. We think that white stitching is not quite as popular to-day as at this time last year. Still, it is used in many shops very extensively. The employment of the stitching machine has, doubtless, in a great measure, served to continue it in use. The sooner it goes out of fashion the better it will be for the coach-maker's interests.

For the New York Coach-maker's Magazine.

SCALE DRAFTING, AS APPLICABLE TO CARRIAGES.

BY JOSEPH IRVING, OF BRIDGEPORT, CONN.

LESSON EIGHTH.

Illustrated on Plate XLIII.

THE engraving which accompanies this article, and completed, is the one referred to at the close of the Seventh Lesson. There is nothing more to be said about the finishing of this drawing than what I have already given in the previous article. It makes a very desirable carriage for livery-stable work, as the top quarters can be removed altogether, leaving open sides with curtains. There can also be added movable close quarters, to form a close coach, when required, with very simple and secure arrangements.

Sparks from the Anvil.

PRIMITIVE MODES OF WORKING IRON.

ELLIS, in his *Three Visits to Madagascar*, gives us some insight into the tools with which the rude inhabitants of those islands manufacture their necessary iron utensils. He says:

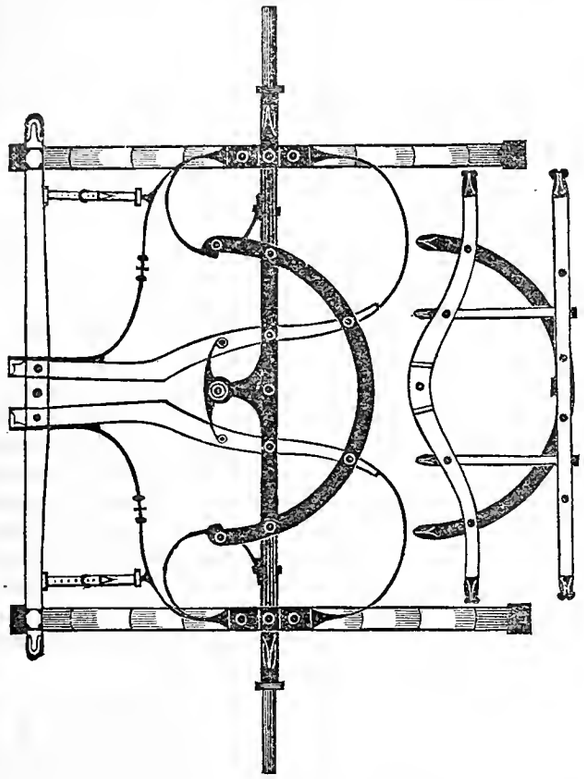
The early productions of the Malagasy smiths were necessarily rude, but, since the instructions given to a large number of youths by the thoroughly qualified English smith sent out with the missionaries, their work has been improved, and is creditable to their intelligence and skill, especially when the simple apparatus by which it is produced is considered. The smiths who work for the government sometimes form almost entire villages, and work together in sheds, but the native smith, who on his own account plies his craft, works at the south end of his dwelling. His forge is a simple affair, the earthen floor of his house forms the hearth for his fire, which is kept together by three or four stones. The bellows consist of two wooden cylinders with pistons, similar to those which supply the draft for the smelting furnace. The anvil, which is about 6 inches square, and 6 inches high, is let into a thick piece of wood fixed in the ground, with the water-trough, tongs, hammers, and other tools near it. The smith squats on a piece of plank or board on the floor, and his assistants sit or stand opposite him with sledge-hammers in their hands, to strike when required, and by this simple process the articles of iron in general use among all classes of the people are produced.

For the New York Coach-maker's Magazine.

SECTIONAL LIGHT CARRIAGE-PART FOR COUPÉS, &c.

BY JOSEPH IRVING, BRIDGEPORT, CONN.

THE accompanying drawing is for a light front carriage-part, which can be used on all kinds of light work. It is well adapted for coupés, or Bretts. The safety hook is



welded on the top-circle, and the stops are on the front ends of the bottom circle, which is supported by the front stay irons—which irons are sometimes omitted—but I think they are necessary to support and keep the stops from being strained.

BORAX.

HERETOFORE, borax, which is so useful an article for the smith in welding, has been made from crude bi-borate of soda, evaporated in Tuscany, at the place where it is mined from the earth; but latterly a new mineral—borate of lime—has been discovered in South America, from which it can be manufactured extensively. Probably this circumstance will have the effect to lessen the price of this useful article, and consequently bring it into general use.

IRON.

A ONCE famous British minister, Mr. Horner, said that iron was the machinery of civilized society, and Locke declared that, if the use of iron were lost among mankind, they would unavoidably return to the savage state. At the same time he styles the person who first made use of iron, "Father of arts and author of plenty;" for of iron all tools are made, and with the tools thus made man tills the earth, builds houses, makes clothes, conducts steam engines, builds railroads, constructs steamboats—in fine, does all the business of civilized life.

IRON, nearly pure, has been discovered in Texas, about 20 miles west of McKinney, near the line of Denton and Collin. It apparently exists in great abundance, and large quantities may be picked from the ground without the trouble of excavating. A piece weighing thirty or forty pounds has been exhibited in McKinney, and subjected to a few experiments. It admits of a fine polish, is soft and malleable, is readily welded with other iron, and it is supposed will yield about 90 per cent. of pure metal.

Paint Room.

STRIPING IN NEW YORK.

As our friends in the country are constantly making inquiries about the New York fashions, which shows, at least, that they are not altogether indifferent about our prevailing tastes, we shall take this opportunity to satisfy their very natural curiosity, by presenting them with two illustrations of a spoke stripe for light work.

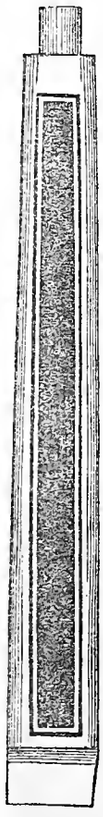


Fig. 1.

Fig. 2.

Fig. 1 represents the side stripes—a broad one in the centre and a narrow one on each side—which extends to within a quarter of an inch at the hub, and to within about four inches at the felloe, the narrow stripe extending all around the broad stripe. *Fig.* 2 is a front view of the same spoke.

In these illustrations the stripes are represented by the white lines on a black ground. The colors usually employed are Chinese vermilion on a black ground, which gives the job a somewhat *bloody* look. When a job is "varnished work"—that is, unpainted—the striping is generally done with black, often varied with a blue stripe for the narrow one.

The springs, axles, and other parts of the carriage-part have the same manner of striping carried all through. This striping is dignified with the name of "the French stripe," and has been very popular here for some time. A few years ago and our striping was of the lightest kind, now fashion seems to have madly run into another extreme, so capricious are her dictates.

We have said above, that this stripe is employed on light work. This is so, but then it may occasionally be seen on heavy jobs also, but not as commonly. If our opinion is

asked, we would say that the New York style of striping is better suited to heavy than to light work; but, as a certain old lady is said to have remarked, "there is no accounting for taste."

DRY-COLOR ORNAMENTING.

To trace a design, whiten the opposite side of the paper on which the ornament is drawn, lightly with chalk, then, having laid the pattern on the job, with a card-pencil, or fine stick sharpened at the point, trace the outlines of your design. This will press the chalk into the varnish—supposing the same to be a little "tacky"—and leave the exact design penciled on the body. You will then mix a composition that will serve as both "body" and "sizing," composed of white lead and English varnish, and for convenience add a little oil and dryer. Coat the design with this mixture, and, should you desire a perfect job, wait until the first coat put on is perfectly dry, and then afterwards apply another.

When this last coat is just dry enough to be a little tacky, apply your various ornamenting colors dry, with an ornamenting brush, shading as your pattern is shaded, and coloring as your peculiar taste dictates. When all has become perfectly dry, wash off clean and complete the job by varnishing. This is a great deal quicker done than by the old process, and is much more brilliant when a job is finished.

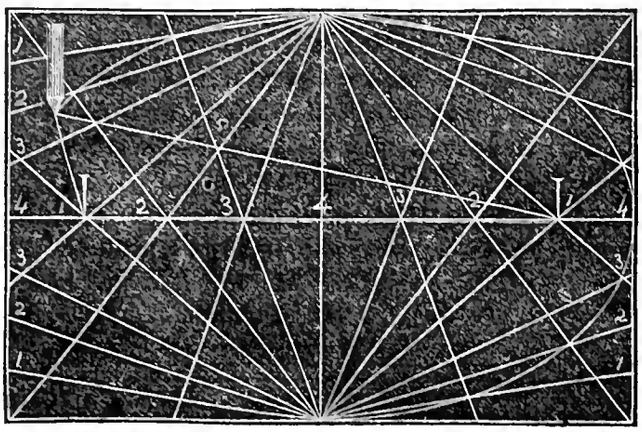
Trimming Room.

For the New York Coach-maker's Magazine.

THE TRAMMEL UNTRAMMELED.

FREDONIA, N. Y., March, 4th 1859.

FRIEND STRATTON:—The reply of friend J. I., to my contribution in the February number of your valuable Magazine, puts me in mind of Don Quixote's fight with the wind-



mill, or the story of the two dogs—old dog Fogy and young dog America. While old dog Fogy was quietly gnawing his reserved bones, young dog America, being more active and of an aspiring mind, had succeeded in treeing a squirrel on a tree hard by. Old dog Fogy, hearing the sonorousness of young dog America's voice, set up an incessant barking, the same as to say, "I treed that squirrel more than three weeks ago," when, in fact, he had not seen the squirrel at all. As friend J. I. has contributed the trammel for my especial benefit, I have untrammeled and sciened it for his benefit, with all the acknowledgments due to such favors. As our friend J. I. deals in scientific and complicated modes in drawing ovals, he must, as well as others, find *some* difficulty in tracing his curves to perfection. For his special benefit, I have applied the string and got the thing started, so that friend J. I. can take hold of the pencil and finish the curves to perfection. Like old dog Fogy, he can bark after young dog America has treed the squirrel. J. HINMAN.

N. B.—All ovals, whatever proportion they may be, the string will strike the curves.

HARNESS BLACKING.

ON page 114 of this volume will be found several recipes for Harness Blacking, since which the following additional ones have appeared in the same journal:

"If 'Y' will take the following recipe, he will be perfectly satisfied, having used it myself for some years:—1 pint spt. turpentine, ½ oz. of japan ink, 2 oz. of beeswax, 2 oz. of white wax, 1 oz. of gum benjamin, 1 oz. of indigo blue, 2 oz. of drop black. Melt the wax and gum benjamin, and then add the other ingredients, having warmed the ink. This blacking will never harden, but is always in a liquid state, and will be found to keep the harness soft and pliable. Apply with a soft brush, and polish with another, and gently rub with a soft cloth, and I think that will suit the most fastidious taste.—NOT A THICKTHORN FOX.

P. S. I forgot to mention it—the compo. will be best kept in something with a tight-fitting lid.

HARNESS BLACKING.—"MRUVIUS" will find the following a good recipe:—3 oz. beeswax, ¼ lb. ivory black, 1 pint neat's foot oil, 2 oz. Castile soap, 2 oz. lard, 2 table-spoonsful of aloes. To be boiled together and poured into a shallow pot.—EXPERIENCE, in *London Field*.

LUBRICATOR FOR AXLES.

A PATENT was issued January 18th, 1859, to Reuben R. Brown, of Buffalo, N. Y., for what he denominates in his specification as an excellent, cheap, and durable lubricator for axles and all rubbing surfaces. It is made by taking three quarts of weak lye (from wood-ashes), one quarter of a pound of common bar-soap, and ten grains of saltpetre, and mix them well together in a wooden vessel. Then take one ounce of sulphur, and one quart of oil (common fish oil), and grind the sulphur in the oil; then pour the sulphur and oil into the vessel containing the lye, soap, and saltpetre, and thoroughly mix the whole together, and the composition is ready for use. These ingredients should be compounded substantially in the proportions herein specified, whether in large or in small quantities, without subjecting them to artificial heat.

OMNIBUSSES IN CINCINNATI.—The number of licensed omnibusses in the city of Cincinnati is 97, whose receipts are daily about $6 each, making an aggregate of $582 per day, paid in five-cent sums for 'bus hire. Multiplying that sum by seven, and we have the average weekly receipts of $4,074, or $211,848 per year.

The New York Coach-maker's Magazine.

MAY 2, 1859.

E. M. STRATTON, Editor.

TO READERS AND CORRESPONDENTS.

☞ *All letters directed to this office on business,* NOT *relating to the Magazine, but solely for the writer's benefit, must inclose a stamp; if requiring an answer, two red stamps. Orders for a specimen number must be accompanied with nine three-cent stamps. When these terms are* NOT *complied with, no attention will be given them.*

OUR RULE.—*All subscriptions terminate with the numbers for which advance payment has been made. Those wishing to continue will, therefore, see the necessity of renewal, by sending in the money in time. We intend to regulate our Edition of the* SECOND VOLUME *as near the wants of the craft as possible, so that an early order is desirable.*

AGENCY—TO COACH-MAKERS.—The publisher of this Magazine offers his services to fill orders for any article *his friends may want, to be found in the New York market,* FREE OF CHARGE, *where the individual is a subscriber. None but orders inclosing the cash are invited. Letters of inquiry* MUST *contain two red stamps.*

"E. E., OF N. Y."—Can send you some sheets, with 125 buggies, etc., thereon, at 25 cents each, or 100 copies of the same for $20. You will find it necessary to send subscriptions to this office, or you may not get the Magazine much longer. To get "buggy-cuts," send for the back numbers.

"P. N., OF TENN."—The buggy-draft is received. We shall give it in the Magazine for June, probably.

"W. D., OF N. J."—Your very acceptable article, in relation to the splitting of panels, will appear in the June Number.

"F. N., OF ME."—The plate, from which to strike the cards, will cost $4—500 cards will cost $2 more.

"L. S. B. & Co., OF TENN."—Much obliged to you for the interest taken in our publication; have had the subscription of but one of the parties named; shall be pleased to receive your drafts of new styles of buggies.

"MR. P., OF N. Y."—The drafts in the July number, of the Messrs. Cook's jump-seat buggy, were copied from drafts furnished us and inserted as an advertisement. If they are not drawn to scale, it is not our fault. This invention being patented, no one can make these buggies without first purchasing the right.

"W. R. T., OF ILLINOIS."—Your ornamental figures are received. Our figures for the June No. are completed; but yours will come in well for a succeeding number. Thanks for your kindness.

"J. S. D., OF DEL."—You will perceive that we have attended to that chap in another column. We have hopes that *he* may yet get justice done him.

"S. T. & S., OF MD."—Our terms to dealers who buy to sell again are—single copy $2 25. If ten or more copies are taken, $2. We engage to mail these direct from the office, if the names are furnished, but the year's subscription must be paid in advance, when the names are sent in.

"T. M. C., MONTREAL."—We wrote you on the 24th of March.

"MISS L. M., OF DEL."—The "lines to Charley" are received. If he don't surrender when he sees them, he must, indeed, be unworthy of your love, and you had then better *let him run.* You may look for it in our June issue.

"J. S., OF NOTTINGHAM, ENG."—The editor would tender his respects to you for your kind regards, in furnishing interesting documents that may be useful in his labors. Shall be happy to hear from you as often as you can make it convenient. Drafts of carriages on tissue paper, when anything comes up new, accompanied by explanations, new styles of trimming, &c., or anything by way of contribution, in MS., you may deem of interest for our readers, would be thankfully received and duly acknowledged.

THE AMERICAN UNION OF INVENTORS.

AT page 194 of this volume, the reader will find an editorial on "the policy of mechanical fairs," in which we gave expression to our sentiments, in regard to them, in no restrained remarks. We then spoke of Fairs generally, but with special reference to the "show" got up for the benefit of somebody's exchequer, under the name and title that heads this article. The mode of doing business at the "Union" having brought its financial committee into disrepute, those having articles on exhibition came to the conclusion that the better policy would be, for them to remove their property to some safer quarters, which having done, the "managers" were left to show only themselves, which they did, very effectually, at the Cooper Institute, where, it will be recollected, they, in October last, organized, under *promising* auspices. To expedite business, and to give color to their proceedings, they unanimously elected the Mayor of New York City as President, and so anxious were they to promote the interests of mechanics and others, that they could not even stop to inquire of his Honor whether he would act or not in that capacity. To, if possible, avoid all *unnecessary* delay in organizing a board of Managers, and knowing, as they did, the propensity in the *genus homo* for honor and renown, they thrust this last *honor* upon some of our most prominent, and respectable citizens, that the "Union" might be able to shine in the reflected light of the good character of others, and thus *dazzle* the eyes of a public in this case too confiding.

But, as we have previously intimated, having nothing else to show, the "principals" made a show of themselves, and that, too, so effectually that the old adage, that "when rogues fall out honest men get their dues," may be set down as an undisputed truism. It would appear that several *members*, claiming to be a majority of the *soi-disant* "Board of Managers" of this Institution, had previously held a meeting at a private room in Amity place, where they had elected a Treasurer, Director and two Secretaries, who were required and demanded "to give just and true statements" of certain accounts, comprised in seventeen specifications, relating chiefly to cash received and expended. This committee were "ordered" to hand in *their* report at the meeting in the Cooper Institute, then to come off.

At the Cooper Institute, the meeting was organized by appointing Wm. H. Rodgers Chairman, and Frank Dibbens Secretary. A motion was then made, to adopt the paper containing the specifications above referred to, that the officers might be satisfied that it was the will of the inventors that they should submit their report. While this motion was pending, a gentleman in the audience rose to explain that he had received a note from Mr. Rodgers, stating that a meeting had been called, at which the officers were ordered to report. Mr. R. said, moreover,

that a Mr. Lloyd seconded the demand. At this point, the meeting appears to have gone into "Committee of the Whole," which, amid "confusion worse confounded," was disgraceful. A visitor makes the following report:

Mr. Tisdale said he had learned from Gen. Lloyd that he did not second the motion, so there was evidently a lie somewhere. Gen. L., he knew, could not lie; Mr. Rodgers, he believed, could.

No sooner had Mr. Tisdale got these words out of his mouth than an indescribably ludicrous scene followed. The Irish, German and American inventors present vented their anger, each in their peculiar way. Yells of "Order," "Order," broke out all over the room. A German, with gray beard sticking from his chin at an angle of forty-five degrees, and hair to correspond falling over his shoulders, jumped from his seat, and ran back and forth like a hen fearful of losing one of her brood. Another on the other side of the room played the part of a game-cock, ruffling his feathers very majestically. A resolution was offered requesting Mr. Tisdale to leave the room. An exciting debate followed.

Mr. Riker attempted to give some reason why Mr. Tisdale should not leave the room. If he went, he would take the report with him, and the object of the meeting would be defeated. He was proceeding to discuss the questions before the meeting, when the shrieks for order broke out more wildly than ever.

The Chair—Mr. Riker, will you please to take your seat?

Mr. Riker—When I am obliged to. If Mr. Tisdale leaves the room you will lose your report. You can't compel a man to do what he won't do. I came here to speak, and I won't be gagged. I will be—

Chair—Please take your seat.

A voice—No man respects the meeting who doesn't respect the Chair.

Mr. Riker—At the request of the Chair, I will for the present yield the floor.

The Chair—You will not yield it—you must give it up.

General Lloyd was proceeding to enforce the necessity of moderation, when he was interrupted by Professor Salomon.

Professor S. (laboring under great excitement)—You are not to the order—you don't speak about the question.

General Lloyd—I move as an amendment to the motion to put Mr. Tisdale out of—to request him to leave the room—that he be asked for his report.

Professor Salomon—It is not right. It may be good to fish in muddy water, but I will see to the bottom in clear water. We have requested them to be so kind as to give us a written report. Before this I had mine cut and dried. [Cries of "Order, Order."] I have to do this. You have substituted this thing and I will treat it so (crumpling the paper which he held in his hand excitedly). The confusion kept growing worse and worse, until Gen. Lloyd took the chair, to give Mr. Rodgers an opportunity to speak. He said he thought it better that Mr. Tisdale should remain in the room.

Mr. Tisdale then, after making numerous efforts, managed to read a report, which set forth that the total receipts of the Union from the Exhibition were $2,766 94; all of this had been expended. The present liabilities of the concern are about $3,600, $2,090 of the liabilities have been canceled by the return of articles on exhibition.

The confusion broke out more violently than ever, on the question as to whether Mr. Tisdale should leave his report with the Secretary of the meeting. This he refused to do, as he did not recognize its power, it having been illegally called.

Prof. Salomon began to speak on this question.

Mr. Tisdale (the younger, the former ticket agent, brother of the Treasurer)—Shut up your head.

Professor S. did not heed this polite injunction, but insisted on being heard. Mr. Tisdale broke out with a prolonged "Bah!" and Prof. S. replied with a like ejaculation, each shrieking louder with every repetition. Finally, a German exhibitor, by Prof. Salomon's side, cried out to Mr. Tisdale, shaking his fist threateningly, "You stole the candy from my tree in the Fair." Mr. Tisdale made a spring at the speaker, and the German put for the door. Mr. Tisdale headed him off, and insisted on the offensive expression being retracted. The German apologized by saying he did "not speak English good," and Mr. Tisdale was appeased. Meantime the hubbub, which for the last five minutes seemed to be in danger of becoming a free fight, was partially appeased, and, after the appointment of a Committee of three to call a meeting next week, an adjournment was moved, and, for the fifth or sixth time during the evening, carried.

Thus ended another chapter in the book of humbug, and we hope it will be a long time before another edition is called for.

END OF VOLUME FIRST.

WITH this number closes Volume I. of the New York Coach-maker's Magazine. Commenced under many discouragements, at a time when coach-making was "flat" and under difficulties, which, if viewed singly, might have served to have discouraged any ordinary person, we have gone steadily on through the year, until (as we believe) our Magazine has visited and been well received in every State of the Union, the Canadas, England, France and Germany. We have the testimonies of the Press and the craft, that the work has, thus far, been ably conducted. This has been through the able coöperation of contributors, who have shown themselves as handy with the pen as the plane. Let it not be said hereafter, in any quarter, that mechanics are, as a general thing, very illiterate. This assertion is libelous, when applied to Coach-makers, at any rate, as these pages amply demonstrate.

We are daily greeted with the remark, that "I did not think that there was interest enough in coach-making to enlist any special attention, and cannot imagine how you can manage to find matter to go on." Why, we would say to the public that the business has become one of the "institutions" of the country, and that New York State alone, outside of New York City and Brooklyn, has over one thousand manufactories, beside firms under the name of wheelwright and wagon-makers, the number of which is very great. If any one doubts this, let him look into the New York State Business Directory, and convince himself of the fact.

AN IMPOSTOR.

IN our March Number, we cautioned our friends against the actions of a fellow in Canada, who is traveling *on his own hook*, as a pretended agent (among other periodicals) for our Magazine. In Canada, he called himself "T. Duff McDonald." After our exposure there, it seems he came into the States, on the same disreputable business. We have just received a letter from a correspondent at Wilmington, Del., where he has—or some one else—played the same game, and, contrary to the custom of *our* authorized agents, taken subscribers for six months at a reduced price. He there stated that "Mr. Stratton would send on the back numbers by mail," he only giving his subscribers one number. Now, we would again state, *our* traveling agents have a certificate of authority, over our signature, and a good supply of numbers to give subscribers on the spot, and a blank receipt with our *engraved* signature printed at the bottom, to show for all moneys paid. Any man, who offers this work for less than our rates, may at once be deemed an impostor. As the fellow is probably going South, we hope some one of our friends will nab him. We will try to describe him in the language of a correspondent: "He is an Englishman, which is very easily discovered by his manner of speaking, as well as his looks. He is a tall and rather slender person, of a reddish complexion, and has red whiskers, brown cloth coat, black pants and high fur hat, and scarf about his neck." This fellow was soliciting subscribers for some other publications published in Philadelphia. We have no agent in our employ at present canvassing for anybody else. Unless an agent has a good supply of magazines, and a written authority to show for his acts, he may be considered as an impostor. To ascertain if your doubts are well-founded, ask him to show a good stock of blank receipts with our *engraved* signature.

ANNOUNCEMENTS FOR THE SECOND YEAR.

WE have been urged to give in our columns the chapters commenced by us for another publication, entitled "The Autobiography of Caleb Snug, of Snugtown, Carriage-maker." That publication having "fizzled out" soon after we had furnished the fourth chapter of the series, left his history incomplete. We shall re-publish these in a revised form, and much improved, and continue the biography down to the present time, which will include one of the most remarkable episodes in editorial life ever yet written.

We intend to continue the series on "The Geometry of Carriage Architecture," together with our chapters on "Coach-making Historically Considered," &c., which we intend shall include its history in America, and be completed in the next volume. We have made other arrangements, for European and domestic correspondence, which, we trust, will show to our patrons that we were in earnest when we projected this magazine, and make our Columbus *friend* blush for his falsehoods.

COMMERCIAL REVIEW OF THE CARRIAGE TRADE IN FRANCE.

THE following article has been translated from the *Mercure Universel*, for February, expressly for this Magazine:

In our No. of January last, our commercial review in relation to Carriage Manufacturing promised nothing very encouraging for the trade; we then said, with reason, that the exportation had not amounted to anything, and, as we are now in February, we are persuaded that this year this species of trade will be almost nul; but, in compensation, orders for the home market, as well as for private individuals, seem to follow each other in quick succession, in all the large factories, the abundance of work obliging these to give a portion of it to the smaller manufactories, who avail themselves of this circumstance to retain in their employ their complement of hands; which enables them to be ready when the orders shall come to them.

Many pony-Chaises are made, of three different models; Victoria bodies, and a few mounted on swans'-necks; *cabriolet-caleche*, with wings and without; some *vis-à-vis*, called sociables by some, and caleche by others; phætons, for two horses, and American caleches. It seems, also, that the American Serpent, which appeared in the "*Mercure Universel*," is getting into favor, as several of that model are being built in Paris. Some Victorias, with eight springs are also made, and are considered of great distinction.

MISCELLANEOUS BUSINESS NOTICES.

THE NEW YORK COACH-MAKER'S MAGAZINE, VOL. I.—We are now ready to supply our Volume, bound, for three dollars and fifty cents, postage paid. The numbers complete for the first year will be three dollars. Those making up clubs, and preferring to have the first volume instead of the second for their trouble, can have it, on reception of their remittances, and making their wishes known, by return mail.

THE PROFIT IN TAKING THIS WORK.—There are some men who will spend a week in getting up a stitching design unsuccessfully, and who are so penurious that they would not give the small sum of *three dollars* for that which comes ready prepared to their hands every quarter. No wonder such *calculators* never get along. Why, my friend, as the business in which you are engaged is for your bread, should you only get one new idea from our columns during the entire year, we tell you it will pay you better to take this work than to spend as much on some trashy periodical, that only robs you of your time to read, and leaves the mind more in darkness afterwards than before you read it.

Again, one *original* ornament from our volume, put on a buggy panel, will often make it sell for ten dollars more than it otherwise would.

THIS MAGAZINE AS A PRESENT.—What more appropriate and welcome act can be done by the employer than to present this work to an apprentice? We venture to say, that

the giver would find this a profitable speculation on his part. Suppose it is tried.

THE USEFULNESS OF THIS MAGAZINE.—If you have a customer, who calls and scarcely knows what he wants, by showing him the plates he will tell you so near (if not exactly), that his *imagination* and your *ingenuity* will be able to supply the rest very easily.

MAKE UP YOUR CLUBS.—Will our friends please remember that the success of our enterprise is in a great measure dependent on the personal interest they take in getting up subscriptions to the second volume of this work. Remember that our work has come out regularly every month—that we have given FIFTY PLATES the first year, instead of the thirty-six promised in our prospectus to the first volume, and that we have the capital and friends to carry out all we promise, and, what is better still, *the disposition and integrity to do so.* Remember, also, that we have given more original matter, in our first volume, than the craft have been furnished with in the whole four volumes they have been *humbugged* with by another publisher. One of the chief objects in starting this work was, to show the world that Coach-makers were capable of exhibiting as high a standard of literary taste as any other class of men.

If some one friend in every shop would just take a little interest in our enterprise and get us up a club, he would not only be favoring us, but have the pleasing after-consideration that he had contributed towards a worthy enterprise. If every subscriber would only induce his neighbor to subscribe, we should at once have our present number of subscribers doubled, and it would place us in a position to add to the interest of the work, by a greater outlay in its publication. Read over our terms on the cover, do something to get an extra copy and send us on our way rejoicing. We are anxious to ascertain, as soon as possible, how many copies of this work are required to supply our friends, and therefore respectfully request that they would make up their clubs at once.

Remember that a work with 25,000 subscribers can afford to expend five times the amount of money in its production that one with only 12,000 can. Please try us and see if we don't prove it. Read our certificates in the last page.

HOW TO REMIT.—Where the amount is $10 or more, procure a draft, if possible, payable to our order, on New York; if not, send notes on Eastern Banks, if conveniently to be had. We wish it distinctly understood that, where the parties can not do better, the notes at par in their localities will be received at par value by us. *Register your letters.* This will cost you only five cents. In doing so you will furnish us with indisputable evidence that you have mailed us money, and, when received here, the P. M. will be able to tell you if we received it, should the fact afterwards be called in question. We take it that P. O clerks are very shy of taking registered letters, when they know that such are more easily traced to the thief than any other. Should you send gold, be very careful to paste it between two pieces of paper, else it may shake out and be lost. Be very careful and pay the postage on your letter, and direct it to E. M. STRATTON, No. 106 Elizabeth St., New York.

ODD NUMBERS.—In our efforts to make this work known during the first year, we have a great many odd Nos. on our hands, which we will supply to any who may have lost theirs, and wish to perfect their volumes, at 25 cents each.

SPECIMEN NUMBERS.—As our Magazine differs from the common newspaper in value, we cannot afford to give away specimen numbers. It will be necessary, therefore, to send along *twenty-seven cents* in stamps, or we shall not notice the request when made by letter. See our reasons in the last number. Our terms for the second volume will be STRICTLY IN ADVANCE, "*and no deviation.*"

POSTAGE STAMPS.—All letters of inquiry, not containing money for the Magazine, must contain two cents in stamps (this every letter we get costs us); if on business requiring an answer, six cents in stamps. When these conditions are not complied with, no answer may be expected.

NOTE.—The great quantity of letters we get—inquiring "where I can get good springs, axles, an omnibus," or on other matters of no benefit to us, other than to oblige our subscribers—leads us to adopt this course. We suppose the postage on these purely individual writers' own personal business, the past year, has cost us, at least, $40 cash for postage, and how much time we could not cipher up. Any reasonable man will admit, that where we give our time we should be allowed our actual disbursements.

APOLOGETICAL.—Owing to the limited space, and the time required in getting out this number, we have been obliged to curtail the mechanical departments somewhat. We hope to make them more useful in our next number.

ANNOUNCEMENTS.—We intend to give one of the finest and most *original* ornamental plates for the painter, in the June number, that we have ever had the pleasure to present to our subscribers.

Messrs. Baldwin & Thomas, of Newark, N. J., have kindly contributed a beautiful draft of a hearse—which alone would be cheap at $5—which we shall give in our next, together, with two buggies, and a Cardinal Brett, each from the different artists connected with this Magazine. We intend to make the initial number of our second volume the best we have ever published, both in its literary as well as artistic originality. We hope to find our foreign arrangements, with agents in Europe, carried out in our next volume, to the entertainment and profit of our readers.

INVENTIONS APPERTAINING TO COACH-MAKING.

AMERICAN PATENTED INVENTIONS.

March 1.—HARNESS ATTACHMENT FOR SUPPORTING DRIVING LINES—T. D. Brown, of Montville, Ohio: I claim, as a new article of manufacture, an attachment or line-supporter, to be placed on a horse's rump, by securing it to the harness in the manner shown, or in any equivalent way; said attachment consisting of the adjustable strap, A, pin and clasp, B and C, cross-piece, D, adjustable standard, H, and arms, G G, the whole arranged and combined as described, and for the purpose set forth.

CARRIAGE SPRING.—Edward Maynard, of Brooklyn, N. Y.: I claim attaching the returned ends of the spring directly to each other by means of the shackle, h, substantially as and for the purpose specified.

TEMPERING STEEL SPRINGS—James Jenkinson (assignor to himself and H. Mandel), of Williamsburg, N. Y.: I claim arranging the wires c c, in such a manner that, by tying one end of each of the same to one of the arms of the wheel on which the coil is formed, and, by extending the ends so tied down to the hub of the wheel, the loose ends of the wire serve to fasten the several rings of the coil, substantially as described.

TOOL FOR TENONING SPOKES.—J. J. Croy, of Caledonia, Mo., Patented February 3, 1857: I claim, *first*—The adjustable gauge, D, attached to the tube, A, substantially as and for the purpose set forth.

Second. The employment or use of the temper or set screws, B C, applied to the tube, A, as and for the purpose set forth.

Third. The gauges, H, fitted in the bars, H H, of the clamp cutter-head, all the above parts being arranged and operating as specified.

March 8. DUMPING WAGON.—Theodore Bailey, of Friendship, Va.: I claim, first, a wagon which dumps itself by the approximation of the wheels, as set forth.

Second. The combination of a spring-catch, H, with the divided reach, substantially as and for the purposes set forth.

CONNECTING LINKS AND AXLES OF VEHICLES.—David Beard, of Shippensburg, Pa.: I claim, first, the peculiar manner of effecting a combination of the hub, short auxiliary axles and intermediate stationary axle, whereby internal auxiliary bearings for the short axle and an external main bearing for the hub are provided, substantially as and for the purposes set forth.

Second. Making the end of the main axle convex, and the main bearing in the inner end of the hub concave, substantially as and for the purposes set forth.

MACHINE FOR TURNING IRREGULAR FORMS.—D. H. Krauser, of Pottsville, Pa.: I claim, *first*, the manner of causing the carriage, L, which supports the work, to traverse over the cutters by means of the pulleys, E F, *e*, and G, belts, *c* and K, endless chain, *m*, crank-arms, I, and connecting-rods, K, arranged and operating as before described, in combination with the means described for turning the work on its axis through the plates, M, bent levers, N, pawl, *s*, and ratchet-wheel, *o*, substantially as set forth.

I do not claim the reverse pattern wheel, W, in itself as new; but I claim, *secondly*, the arrangement of the pulley, Q, belt, *v*, spindle, R, in frame, S, with the reverse pattern-wheel, W, arranged and operating as set forth and described.

CRADLE WAGON.—George Smith, of Brooklyn, N. Y.: I claim, as a new and improved article of manufacture, a cradle and wagon combined, when the several parts are constructed and operated substantially in the manner described.

MACHINE FOR HEWING OUT HUBS.—G. W. Miles, of Michigan City, Ind., and P. P. Lane (assignors to Lane & Bodly, of Cincinnati, Ohio): We claim, *first*, the described arrangement and combination of the axles, C C, stud shaft, I, and rotating rest, J, for hewing out cylindrical forms in the manner set forth.

Second. In combination with the above, the ways, D D, carriage, E, feed-arm, F, pawls, G, and rack, H, arranged and operating together substantially as and for the purposes explained.

March 15. MACHINE FOR BENDING WOOD FOR FELLOES.—Geo. A. Brown, of Newfane, N. Y.: I claim the arrangement of the platform, E, screws, *d* and *i*, and spring, *c*, with the mould block, the several parts being constructed and operating substantially in the manner and for the purposes specified.

SAIL WAGON.—William Thomas, of Benton county, Ark.: I do not claim the application of sails and steering apparatus to vehicles for transportation by land; neither do I claim the sprayed spokes and suspension rods used in the strengthening of the wheel; they are well known.

But I claim, *first*, the combination of the spars and cargo-box, on the rocking shaft, *a*, thus lowering the center of gravity and increasing the stability of the fabric, not only in this way, but by also, and as another effect thereof, allowing the sails to yield to violent gusts of thwart wind, receiving their force gradually, and spilling it more and more as they decline.

Second. I claim the invention of the hollow wheel hub, which I have called the barrel hub, to be used for the purposes of freight, thereby relieving the axle, avoiding friction, and adding to the power of the vehicle to stand up safely against strong cross winds, the various parts being arranged in the manner and for the purposes set forth and described.

MISCELLANY.

"SEVENTY-FIVE cents per gal," exclaims Mrs. Partington, on looking over the price current. "Why, bless me, my dear old man gave two dollars and a bushel of the very best potatoes for me. However, the gals of this day ain't nigh so dear as I was then."

A QUAINT writer says: "I have seen women so delicate that they are afraid to ride, for fear of the horses running away; afraid to sail, for fear the boat should upset; and afraid to walk, for fear the dew might fall; but I never saw one afraid to get married."

A CELEBRATED portrait-painter met a lady in the street, who hailed him with:—"Ah, sir, I have just seen your portrait, and kissed it, because it was so much like you." "And did it kiss you in return?" "Why, no." "Then, said he, "it was not like me."

ALMOST everybody we meet is complaining of being afflicted with a severe cold. The following prescription, taken from an old black-letter book, A. D. 1430, may be of service to some of the sufferers. Try it:

Putte your feette in hot water,
As high as your thighes;
Wrap your head in flannelle,
As low as your eyes;
Take a quart of rum'd gruelle,
When in bedde, as a dose;
With a number-four dippe
Well tallowe your nose.

MATRIMONY.—Hot buckwheat cakes; warm bed; comfortable slippers; smoking coffee; round arms, &c.; shirt exulting in buttons; redeemed stockings; bootjacks; happiness, &c.

Single Blessedness.—Sheet-iron quilts; blue noses; frosty rooms; coffee sweetened with icicles; gutta-percha biscuits; flabby steak; dull razor; corns, coughs, and colics; rhubarb, aloes, misery, &c.

AN exchange paper tells a story of a negro boy, who fell into a hogshead of molasses, and wonders if they *licked* him when they took him out.

THE tail is the indicator of joy in the canine species. In caressing a strange dog you should always "*wait for the waggin.*"

AN OLD UN.—Mr. Frederick Cook, of Cattskill, N. Y., has in his possession and use a sleigh 83 years old, having been built in 1776.

PROSPECTUS OF THE SECOND VOLUME.

The only Magazine of the kind in existence!

Will be Published, about the 10th of May next,

No. 1, Volume 2, for June,

OF

THE NEW YORK

Coach-Maker's Monthly

MAGAZINE;

DEVOTED TO THE LITERARY, SOCIAL, AND MECHANICAL INTERESTS OF THE CRAFT;

Embracing Four Beautifully-engraved Plates, on Tinted Paper, useful to Coach-Makers; Twenty Pages of Interesting Reading Matter, Illustrated with Fine Wood Engravings, with the necessary Cover and advertising pages to render the work complete.

To those who have so generously patronized our Magazine in its infancy, and through a season of unexampled business prostration, we take occasion here to return our heart-felt thanks. We think it scarcely necessary to say anything in order to persuade them to continue their subscriptions into a Second Volume. We rely with confidence on their continued patronage. But there are yet many who are unacquainted with the object and character of this publication. To reach such we depend upon *our* generous friends, hoping that they will extend their liberality so far as to invite *their* acquaintances to give us "a lift" the ensuing year.

The Publisher would say to all, that he intends to spare no pains in striving to make this Magazine useful to the coach-maker in his *work-shop*, and, in some degree, at least, to instruct and amuse the members of his "*Home Circle.*"

The general features carried out in the first volume will be maintained in the second, with an aim, so far as the mechanical departments are involved, to make it still more worthy of the craft. We have some new and interesting features in contemplation for the future, which we choose to give in performance rather than in promises. Some tell us (we would say this modestly), we have more than redeemed our promises in the past. We hope to deserve as much credit in the next volume.

PLAN OF THE WORK.

Our Monthly Designs will consist of three Practical Working Drafts, contributed by first-class designers and reporters of Style, both in this country and in Europe, and drawn correctly to scale. To enlarge the field of design, and to give variety and tone to the work, we shall (as a general thing) give one foreign, one fashionable, and one original or improved design, in each number. To accomplish this, we have secured Paris, London, and Berlin Correspondence; also some of the most eminent designers in this country.

As a Literary Work, we design to make the "Coach-maker's Magazine" an honor to the Craft.

Our Portrait Gallery.—We shall give an occasional Portrait of men, eminent as Manufacturers, intimately connected with Coach-making.

Many of the first Coach-makers in America have arisen from poverty and obscurity to their present position, with no other help but native genius and an indomitable will; such life sketches cannot fail to inspire the hearts of the rising generation with a nobler and higher purpose of life.

The Business Department will contain matter of a purely business character, such as Patent Illustrations, Notices, Items, &c. In this we shall speak of inventions as they are represented, and of business in the light best calculated to bring our advertisers into notice; so that all remarks of a complimentary character must be regarded in a *purely business light.*

The Trimming Room will be open to contributions, but will contain prospective cuts only when some new and practical design is discovered, or some new fashion is introduced; but will contain hints and suggestions from the most eminent workmen, East and West, with diagrams, scientific rules, &c., illustrated and explained. A quarterly Stitching Plate will be given.

The Paint Room.—The Painters' department will also be supported by voluntary contributions, and will contain "hints," facts, valuable receipts, &c. The Ornaments will be of a rare and tasteful character, and will appear on a fine tinted plate leaf, quarterly. Printing them thus will secure a finer impression than otherwise.

The Smith Shop.—The Iron Workman will find his branch ably represented in this department.

For terms, &c., see on first page of the cover.

Please make up your clubs, and send on your subscriptions, with *the payment in advance*, that we may have some guide as to the edition that will be called for.

CERTIFICATES.

As we knew the man we had to contend against when we undertook this enterprise, we fortified ourselves with "the documents." Circumstances have since shown the wisdom of the measure. We now add a few additional names, in order to satisfy those Southern and Western friends, who were so shamefully treated by "their old friend" in 1858, that by giving their patronage to us they are dealing with quite a different character. We could multiply these certificates almost indefinitely, did we consider it necessary. If further evidence is wanted, we offer the fact of our promptness in issuing the numbers of the first volume.

1009 Chestnut St., Phila., 10th Nov., 1858.

This is to certify that I have always found Mr. E. M. Stratton, Publisher of the "New York Coach-maker's Magazine," a gentleman of worth and reliability, and cheerfully recommend him to the notice of all engaged in the Carriage business.

WM. D. ROGERS.

Salem, Ohio, March 4, 1859.

Having been personally acquainted with Mr. E. M. Stratton for several years past, and knowing the high reputation enjoyed by him as a responsible man, a practical Coach-maker, an accomplished scholar and a gentleman, I take pleasure in saying that I have full confidence in his ability to make the "Coach-maker's Magazine" all the craft may desire. I therefore cheerfully recommend Mr. Stratton as worthy of the patronage of the Coach-making public.

ALLEN S. FELCH.

To the above we subjoin the certificates of the leading men in the trade in New York city, and who have known us for years:

This is to certify that we have been acquainted with E. M. Stratton, Proprietor of the "New York Coack-maker's Magazine," for several years, and we believe him to be not only a correct business man, but perfectly responsible as a publisher. We intend to give his new enterprise our hearty approval and cordial support.

COACH-MAKERS—NEW YORK CITY.

WOOD BROTHERS,	J. R. LAWRENCE & CO.,
BREWSTER & CO.,	MINER & STEVENS,
DUSENBURY & VANDUSER,	JOHN C. HAM.

CARRIAGE HARDWARE DEALERS—NEW YORK CITY.

SMITH & VAN HORN, JOHN P. JUBE, BOUTON & SMITH,
F. S. DRISCOLL & CO., CHARLES C. DUSENBERY.

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